THE FEASIBILITY OF CONSOLIDATED HEALTH CARE FINANCING AND STREAMLINED HEALTH CARE DELIVERY IN MASSACHUSETTS

Prepared for the Legislature
of the
Commonwealth of Massachusetts

LECG, LLC,
Mercer Government Human Services Consulting,
and McDonell Consulting

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The opinions expressed and any errors in this document are the responsibility of the authors.

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We also wish to thank our families.

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EXECUTIVE SUMMARY

The Massachusetts Legislature engaged LECG, LLC (LECG) in November 2001 to provide an independent analysis of the feasibility and fiscal implications of establishing a system of consolidated health care financing and streamlined health care delivery accessible to every resident of the Commonwealth. This initiative was mandated by Chapter 141 of the Acts of 2000, Section 32.

A. FACT FINDING

Massachusetts has a long and rich tradition of involved citizen debate in policy discussions and State/local concerns. LECG solicited public input through three means:

- Stakeholder interviews
- Public forums
- Consumer survey

A total of 118 health care stakeholders were interviewed about the current state of health care financing and delivery in Massachusetts, and they were asked for their thoughts on how the system might be improved. These individuals represented the Massachusetts Legislature, State government, health care insurers, hospitals and other health care providers, associations, foundations, advocacy groups, labor unions, academia, and other companies and organizations. Public forums were conducted on February 25th in Lowell, February 26th in Holyoke, February 27th in Boston, and February 28th in Brockton.

The survey was distributed to interested consumers. Approximately 400 surveys were distributed at the public forums and to other individuals at their request.

The public's definition of consolidated health care financing included:

- Combining all financing sources into a single payer, either public or private
- A fully government financed system that builds on current processes
- A universal system (coverage for all) with multiple payers and providers

The public's definition of streamlined health care delivery included:

- Paperwork reduction, including one billing system, payment system and constant reimbursement rates to providers
- A change in where care is delivered and how it is provided
- Individuals can go to the closest location for care and all gatekeepers but the individual's physician are eliminated

1. ACCESS TO HEALTH CARE

According to the public input process, access to health care services includes health insurance coverage, availability of providers, cost, transportation, cultural competence, and physician office hours.

The consumer survey found that of 178 survey respondents, 83 percent were either very satisfied or satisfied with their access to medical care. Just over half of respondents, 51 percent, were either very satisfied or satisfied with access to mental health services. However, 65 percent of respondents were not satisfied with their access to home health care, and 72 percent of respondents were not satisfied with their access to long-term care services.

The State's coverage of children through Medicaid, the State Child Health Insurance Program (SCHIP) and other public programs, was praised by most stakeholders. reportedly, a large percentage of dentists, radiologists, anesthesiologists, and dermatologists (particularly in Western Massachusetts) will not see Medicaid patients because of low reimbursement rates. Obtaining dental care in Cape Cod, Martha's Vineyard, and Nantucket was also reported to be a problem. Most interviewees agreed that behavioral health services were difficult for State residents to obtain. Critical service shortages were reported in long-term residential treatment and supported living for children and adults, community-based programs, and social supports (including rental subsidies).

Emergency room (ER) diversion is a growing problem at Massachusetts' hospitals, particularly in the Boston area. Stakeholders attributed part of the problem to use of the ER for non-emergency care, an inability to move ER patients to inpatient beds because beds are filled with patients waiting for residential behavioral health care, and the unavailability of sufficient nursing staff.

Affordability of health insurance and services is also becoming a critical issue for Massachusetts' employers and residents. Employers, both large and small, reported premium increases of 15 to 20 percent over the previous year. Paying for prescription drugs is increasingly problematic for individuals, particularly senior citizens and the disabled with no or limited prescription drug coverage.

The publicly perceived strengths of the Massachusetts system include:

- Quality teaching hospitals
- Excellent delivery system, quality of care, and health care professionals
- Good distribution and diversity of providers
- Political leaders that support health care programs
- Innovative Medicaid program with generous benefit package
- Strong network of community health centers and community based providers
- Extensive citizen support for health care initiatives
- Good health plans with high accreditation and strong customer service
- Large employer participation in health care

As might be expected, certain of the strengths described above also create some weaknesses. The weaknesses included:

- Large health care premium increases caused by medical inflation, prescription drug costs, an aging population, and cost shifting from Medicare and Medicaid
- Lack of coverage for all residents
- Most expensive health care system in world; health care costs are second or third in the nation among peer states
- Too many public programs with complex eligibility requirements
- Hospital based delivery system, which produces high costs
- Lack of a well-organized system of care
- Excess use of tertiary hospitals and insufficient use of community hospitals

2. BARRIERS TO CONSOLIDATION AND STREAMLINING

Barriers to the establishment of a consolidated health care financing and streamlined health care delivery system include:

- Time constraints – cannot move from the status quo to a single payer system in a reasonable amount of time
- Resistance to and fear of change by involved parties (including Legislature)
- Lack of financial resources
- Private sector profit issues
- Lack of trust in a government sponsored program
- Difficulty implementing a single payer system in a single state (versus a national approach)
- Disbelief that a single payer system will work and concern regarding its cost
- Traditions of insurers and providers
- Lack of agreement on approach and oversight process(es)

3. A "PERFECT" HEALTH CARE SYSTEM

To help identify the gap between Massachusetts' current health care delivery system and future options, the public was solicited to provide characteristics of the "perfect" health care program.

The "perfect" system discussion begins with the implicit "social contract" inherent in the provision of health care. What are the public's views on the responsibilities and rights of the Commonwealth and its citizens regarding health care?

- The health care system needs to be maximally just. Money must be spent well, but health care must be available to all.
- Health care must be available, accessible, affordable, and suitable.
- Every State resident should be required to have health coverage; financial assistance should be available if necessary. Covering everyone is not only a social good, it is an economic good.
- One solution is to decide that health care is an entitlement for all, and move there incrementally.

- There should not be an individual mandate; purchasing coverage is an individual decision.

In a "perfect" health care world some stakeholders' view of consolidation ultimately means a single payer system, while others were in favor of an all payer system that reimbursed providers according to rates set by a state agency. Most testimony at the public forums favored a non-specific single payer solution. Other consolidation comments included:

- The single state agency would not only determine the health care budget and reimbursement, it would also determine where providers are needed and reimburse them accordingly.
- Under a consolidated system, all payers should be paid the same way at the same rates. There must be common definitions and structures around billing.
- An incremental approach should be utilized. Increase the Medicaid program. Employers should have an incentive to not reduce or eliminate health insurance benefits.
- All state programs should be combined into one and individuals should be allowed to buy into the program.
- The perfect system should build on what already exists. It may be helpful to create a public/private partnership that establishes other buy-in options [such as the Government Insurance Commission (GIC)].
- Administrative simplification should include intake, medical records, billing, formularies, claims processing, credentialing, and reporting.
- There should be a catastrophic plan with medical spending accounts.
- Long-term care services are costly. Either this part of Medicaid should be federalized or a Medicare Part C should be created to cover long-term care services.

Thoughts on the "perfect" benefit package varied from catastrophic coverage to coverage of everything that the individual's physician determined was medically necessary. The ideas included:

- The benefit package should include all medically necessary services. There is no need for care rationing.
- Universal coverage requires baseline benefits; primary and preventive care must be part of the baseline.
- Unlimited choice of providers
- Care must be designed around the patient, and emphasize case management and patient education.
- There must be full integration of physical and behavioral health care, so individuals can see behavioral health providers as necessary.

Opinions regarding the "perfect" financing of health care ranged from individual income tax-based financing to maintain the status quo. Citizens who attended the public forums

generally commented on the precipitous rise in health care expenses over the last few years, particularly with respect to pharmacy costs.

The consumer survey showed that 34 percent of respondents thought that they should pay less than they currently pay, 35 percent were satisfied with the amount that they currently pay, and 29 percent were willing to pay more than they currently pay.

Other finance opinions included:

- A global budget should be created, managed by one State agency and funded by income taxes.
- Health care should be financed by taxes; a cigarette tax is acceptable.
- Health care should be funded like Social Security; both the employer and the employees and self-employed should contribute.
- There is enough money in the health care system to provide good care for all.
- We must look at drug profits and accept a certain level. Prices need to be lowered and drugs need to be government purchased for those that cannot afford them.

Implementation issues around "perfect" reforms include:

- If there is a law to mandate universal health care, a single entity must guide the implementation process.
- Change should be phased in via pilot projects and involve stakeholders. Citizens need to overcome their resistance to change.
- The MassHealth structure should be used to create a long-range plan for additional coverage.

B. SOURCES OF HEALTH CARE COVERAGE AND COSTS IN MASSACHUSETTS IN 2002

LECG estimates there are more than 399,000 individuals with no health insurance in Massachusetts. Of these 72,000 are children and 327,000 are adults.

There are an estimated 860,000 citizens with Medicaid as their primary coverage and another 120,000 senior citizens with a combination of Medicaid and Medicare coverage. There are 858,000 Medicare beneficiaries, of which 535,000 have some prescription drug coverage.

There are over four million Massachusetts residents with employer-based coverage, both public and private.

Costs of the health care system are estimated to total more than $41 billion in 2002, 56 percent of which is paid by public sources. Total care that is federally matched under various Medicaid assistance regulations total more than $8 billion, indicating that the federal share of Medicaid approached $4 billion in 2002. Public and private employer based insurance pays nearly $14 billion in costs. Out-of-pocket expenses are estimated at $1.64 billion for the insured and $356 million for the uninsured.

Overall, 81 percent of all costs are paid by insurers; nearly equally split between public and private sources.

C. THREE REFORM MODELS

The Advisory Committee and LECG designed three reform models to address the criteria specified in the enabling legislation and respond to the additional issues raised during the public input, fact finding and initial analysis phases of the assignment

The models are:

- Medicaid expansion
- Mandated basic benefit package
- Single payer system

1. MEDICAID EXPANSION

The Medicaid expansion model extends Medicaid eligibility to all Massachusetts residents with an income at or less than 300 percent of FPL. In addition to income, the only other eligibility requirements are that the applicant must be a Massachusetts resident and a citizen of the United States or a legally admitted non-citizen. For those individuals with income at or below 200 percent of FPL, there are no cost-sharing requirements. Individuals with income between 200 and 300 percent would be required to pay a monthly premium. The monthly premium for one person would be $50; for two people the monthly premium would be $100. The maximum monthly family premium would be $150. Employees earning above 300 percent of the FPL may purchase coverage if they choose but they are responsible for the entire average premium amount. There are no copayments or deductibles.

At the request of Advisory Committee members, LECG estimated program costs based on two provider payment levels. The first is the current Medicaid fee schedule. The second is a higher, "reasonable compensation"[1] model. Only the Medicaid fee schedule based results are presented here.

LECG estimates that three percent of uninsured adults are high risk and cost approximately nine times the average cost of the typical insured individual.[2] Within all income groups, the State is responsible for paying any cost above the average premium amount. Furthermore, because a Medicaid expansion plan is expected to cover a large proportion of those that now seek financial assistance from the UCP, we assume that the remaining State portion of costs for this model will first be reallocated from the Pool.[3]

[1] The Governor's task force on health care in its final presentation in the spring of 2002 indicated that a provider rate increase of approximately 20percent is needed to adjust the current DMA rates to a reasonable provider payment level. LECG analysis and stakeholder interviews confirm this as a reasonable estimate.

[2] Mercer's actuarial model for high-cost individuals in the general population, 2000.

[3] We stipulate that no more than 50 percent of the UCP's annual budget is reallocated for this purpose.

To better model the true costs of the Medicaid expansion model, LECG assumed a five-year implementation timeline. Because participation is voluntary and because many of those eligible are already eligible in Massachusetts, two different participation scenarios were modeled for each income category. Only one scenario is presented here.

LECG expects voluntary participation to be greatest among those between 201-300 percent FPL. At these income ranges, many adults are employed but cannot afford the employee share of health care premiums. Under the expansion model, the price of insurance to consumers is more affordable; therefore, more will choose to purchase insurance. LECG expects the lowest enrollment rate among those over 300 percent FPL because these individuals usually have alternative health insurance options and will be responsible for the full premium cost if they choose to enroll in the Medicaid Expansion Plan.

Estimated Participation Rates by Implementation Year

	Year	Cumulative Average Percent Enrollment	New Enrollees	Cumulative Enrollees
Highest Estimated Enrollment	SFY 2002	24%	94,059	
	SFY 2003	42%	64,503	158,562
	SFY 2004	54%	47,129	205,691
	SFY 2005	62%	25,961	231,652
Lowest Estimated Enrollment	SFY 2002	18%	66,300	
	SFY 2003	28%	37,144	103,445
	SFY 2004	36%	29,556	133,000
	SFY 2005	40%	14,778	147,778

Summary Chart of Model 1A
Medicaid Expansion Plan
Current Reimbursement

Cumulative 5-Year Total Cost of Model 1A

	High FFP	Low FFP
High Enrollment	$ 3,389,392,203	$ 3,389,392,203
Low Enrollment	$ 2,210,970,447	$ 2,210,970,447

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,276,230,253	$ 893,030,675	$ 825,778,610	$ 577,831,177
Individuals	$ 397,108,288	$ 205,531,395	$ 397,108,288	$ 205,531,395
Employers	$ 783,194,819	$ 539,012,075	$ 840,641,151	$ 582,741,769
State	$ 932,858,842	$ 573,396,301	$ 1,325,864,154	$ 844,866,105

Medicaid Expansion Economic Impact Analysis

Model 1

Year 1		Total Cost of Coverage	Total State Contribution	Federal Contribution	Total Individual/ Employer Contribution
Enrollment	FFP				
Low	Low	$305,594,076	$88,984,138	$78,021,220	$138,588,718
High	High	$433,538,583	$124,779,993	$158,780,054	$149,978,536
Cumulative	Cumulative				
Low	Low	$2,210,970,447	$844,866,105	$577,831,177	$788,273,165
High	High	$3,389,392,203	$932,858,842	$1,276,230,253	$1,180,303,107

		Net Increase in Output	Net Increase in Household Earnings	Net Inc./(Dec.) in Jobs	Increase in Massachusetts Tax Receipts	Adj. Cost to Massachusetts
Enrollment	FFP					
Low	Low	$144,316,126	$53,971,036	$1,187	$4,646,631	$84,337,507
High	High	$285,370,619	$105,325,260	$2,468	$9,093,612	$115,686,381
Cumulative	Cumulative					
Low	Low	$1,096,292,860	$414,599,912	$8,611	$35,610,306	$809,255,798
High	High	$2,283,367,850	$840,961,202	$19,906	$72,640,509	$860,218,334

2. MANDATED BASIC BENEFIT PACKAGE

Under the mandated basic benefit package model, all Massachusetts' residents are required to have health insurance coverage.[4] Like Model #1 this reform effort is an expansion of Medicaid, however participation is mandatory and consumers are required to pay for all or some of their health insurance costs above the Medicaid eligibility thresholds. Like Model #1 there are two scenarios under this reform model, in this case distinguished by consumer (income) eligibility thresholds, again only one scenario is presented in the executive summary.

Health insurance could be provided by an individual's employer or by a public agency (such as DMA), or purchased by the individual. Although enforcement methods were discussed with members of the Advisory Committee, no consensus was reached. We suggest that one method to consider would be verification of coverage at the time of State tax return filing. If the tax filer did not have coverage, payment could be withheld or made at that time. Alternatively, premiums could be collected through an employer, the same way that Medicare funds are collected.

The benefit package for this model is that provided by Massachusetts' Medical Security Plan (MSP). The package is slimmer than the one offered through Medicaid and more

[4] This model assumes that senior citizens are covered under Medicare Parts A & B, or a combination of Medicare and Medicaid under the expansion populations. The model does not require Senior citizens above 200% of FPL to purchase a Medicare supplement to mirror the basic benefit package. Policy makers may wish to extend the model in this way.

closely resembles a commercial health plan. Any insurer who offers a health plan in the State would be compelled to offer the MSP on a guaranteed issue basis.

Either DMA or the GIC would provide State oversight of this program. It would be administered by a private contractor (selected by a competitive bidding process) and would utilize the contractor's network. Contract language would be necessary to ensure that the contractor has a provider network sufficient to provide health care to all covered Massachusetts residents.

This model would also include risk mechanisms so that high cost individuals would not unduly raise premiums for the rest of the covered population. These risk mechanisms would include reinsurance, risk pooling, and regulatory oversight to ensure a fair distribution of high cost individuals' costs across payers. Unlike an optional program, a mandate compels both the healthy and sick to purchase coverage, thereby preventing costs from escalating due to an exodus of healthy individuals from the risk pool.

This model has two alternative sets of eligibility criteria. The first eligibility threshold uses the current DMA Medicaid eligibility requirements plus all other individuals under 200 percent FPL. All people over 200 percent FPL who are uninsured must purchase the basic benefit plan.

Estimated Participation Rate for Mandated Basic Benefit Package Model

	Year	Cumulative Percent Enrollment	New Enrollees	Cumulative Enrollees
Highest Estimated Enrollment	SFY 2002	30%	119,820	
	SFY 2003	55%	99,850	219,670
	SFY 2004	73%	71,892	291,562
	SFY 2005	100%	107,838	399,400
Lowest Estimated Enrollment	SFY 2002	30%	119,820	
	SFY 2003	55%	99,850	219,670
	SFY 2004	73%	71,892	291,562
	SFY 2005	85%	47,928	339,490

Summary Chart of Model 2A
Mandated Basic Benefit Plan
Assuming Current Medicaid Eligibility

Cumulative 5-Year Total Cost of Model 2A

	High FFP	Low FFP
High Enrollment	$ 4,208,366,428	$ 4,208,366,428
Low Enrollment	$ 3,997,578,358	$ 3,997,578,358

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,618,573,546	$ 1,542,441,006	$ 1,094,919,160	$ 1,045,657,969
Individuals	$ 524,996,709	$ 493,361,860	$ 524,996,709	$ 493,361,860
Employers	$ 800,838,696	$ 757,264,988	$ 1,390,105,336	$ 1,315,706,666
State	$ 1,263,957,477	$ 1,204,510,504	$ 1,198,345,223	$ 1,142,851,863

Mandated Basic Benefit Package Model
Economic Impact Analysis
Figure 1

Model 2

Year 1		Total Cost of Coverage	Total State Contribution	Federal Contribution	Total Individual/ Employer Contribution
Enrollment	FFP				
High	Low	$301,625,051	$74,670,752	$63,428,635	$163,525,664
High	High	$301,625,051	$81,802,617	$98,028,141	$121,794,292
Cumulative	Cumulative				
High	Low	$2,774,912,386	$686,961,493	$583,535,431	$1,504,415,463
High	High	$2,774,912,386	$752,573,747	$901,846,526	$1,120,492,114

		Net Increase in Output	Net Increase in Household Earnings	Net Inc./(Dec.) in Jobs	Increase in Massachusetts Tax Receipts	Adj. Cost to Massachusetts
Enrollment	FFP					
High	Low	$117,668,601	$44,063,249	$962	$3,792,560	$70,878,192
High	High	$176,887,608	$65,407,775	$1,519	$5,644,938	$76,157,679
Cumulative	Cumulative					
High	Low	$1,082,536,278	$405,376,326	$8,854	$34,891,075	$652,070,418
High	High	$1,627,343,664	$601,743,270	$13,977	$51,932,715	$700,641,032

The one-year results show a relatively limited range of State financial liability scenarios ranging from $75to $82 million. However, the federal participation rate drives both the employer/employee liability and the overall level of economic stimulus created. With high federal participation, the State's net increase in output rises $177 million with an estimate 1,519 new jobs created.

The cumulative impact over five years is similar in scope. The employment impact ranges from a gain of 8,854 to 13,977 full time jobs. The cost to the State decreases significantly as tax receipts grow over the implementation horizon.

3. THE SINGLE PAYER MODEL

The single payer model is the most complex change from the current system of health care finance and delivery in Massachusetts. The single payer model is the product of public input, LECG analysis, and Advisory Committee member input. This version of a single payer system extends the rights to care commonly associated with national health systems one step further and provides for a single authority to purchase, monitor, and regulate all service delivery. The financing of care is based on a trust fund created to receive and distribute all health care dollars, including Medicare, Medicaid, commercial, and other funds. A newly established Single Payer Agency (SPA) would pay for all services, manage care and provide administrative oversight.

a. Characteristics of the Massachusetts Single Payer System

- Health insurance provided to all residents of Massachusetts
- Consumers:
  - Pay for care according to their ability
  - Are assured of necessary care regardless of their ability to pay
  - Can see any willing provider
- Benefit package covers:
  - All medically necessary care
  - Covered services include:
    - Acute care services
    - Mental health services
    - Limited long-term care services
    - Preventive services
    - Pharmaceutical services, with voluntary generic drug substitution
    - Occupational health services
    - Vision
    - Dental
  - Pharmacy pricing is regulated; the Advisory Committee recommended a reference pricing system[5]
- A SPA that is quasi-governmental will administer the system. The SPA will:
  - Regulate care
  - Enroll consumers
  - Determine appropriate care standards
  - Ensure quality of care
  - Collect revenues
  - Pay all providers
  - Assume all risk for the cost of providing care, guaranteed by the State or other source
- The delivery system remains unchanged
  - Providers are organized into networks and are private practitioners or employees of the group, network, or facility with which they work
  - Facilities are separate legal entities and may be organized as for-profit or non-profit enterprises
- Financing is based on:
  - Employer based taxes levied on all employers including the self-insured
  - Employee taxes

[5] Reference pricing generally means that the SPA would pay the price of the least expensive, therapeutic equivalent drug among the choices, usually within a single therapeutic class. Other variations of a strict reference price system allow physicians to make medically necessary exceptions to the reference price pharmaceutical with full payment by the payer; others may base the reference price on a market basket of countries' prices or another price list.

  - Other State and local taxes
  - Federal revenue streams, including Medicaid and Medicare, both of which would be pooled
- The role of health insurance companies
  - Health insurers may offer alternative health insurance products to the general public, regulated as they are today
  - Health insurers may contract to organize and administer the provision of care much as they do for self-insured employers in today's marketplace
  - Health insurers may contract with the single State agency to provide administrative services, including but not limited to, claims adjudication, quality management, and provider audit functions
- Regulatory changes will include:
  - Consolidation of provider licensure under the quasi-government agency
  - Federal waiver procurement for Medicaid, Medicare, and ERISA
  - Charity care compensation

b. Brief Descriptions of five of the Most Important Characteristics

i. The SPA

The SPA will be a public or quasi-public entity with the mandate to organize systems of care. The agency could be an entity modeled after the GIC; DMA; or a newly developed non-governmental organization.

ii. The Delivery System

The single payer model maintains most aspects of the current delivery system. It may include individual providers and facilities or networks of providers and facilities. The SPA may pay providers directly or choose to contract with network administrators that contract to administer the system for certain geographic areas, population groups, or networks of providers.

The SPA's criteria for delivery system organization will be to balance costs and benefits to consumers. The SPA will contract with third party administrators, other network entities, and individual providers when the overall system cost or the quality of care outweighs the administrative expense of contracted functions.[6]

iii. Financing

Financing for the single payer system will be mandatory for individuals and employers as well as contributions by local, State, and federal government sources. Taxes could include dedicated State taxes on earned and unearned income, cigarettes and alcohol set

[6] Other organized health systems around the world have found that regional, sometimes local, and sometimes target population-specific organized networks are efficient. For example, the National Health System in the UK now contracts with and capitates primary care "stakeholder" groups for all care in some regions. In New Zealand certain services are contracted out, for example, orthopedic services, and some populations, for example, those desiring specific added benefits may "opt-out" of the standard system.

at rates that would maintain current State and local health care spending while maximizing available federal funds.

Taxes and other dedicated payments will be collected through payroll withholding by the State's taxing authority and then transferred to the SPA for distribution. Massachusetts residents who work in other states will have funds deducted from their payroll.

State and local funds will be provided to meet the costs of citizens below 300 percent FPL. We assume that federal matching funds will be available through the Medicaid program, once needed waivers are obtained.

iv. Benefit Package

Advisory Committee members that met with LECG staff discussed this issue at some length. The benefit package is to be comparable in coverage to the State government employees benefit package, without deductibles. Although at odds with the enabling legislation, the Advisory Committee approved the use of co-payments to incent rational consumption of services.

v. Eligibility and Residency

The single payer system may create an incentive for non-Massachusetts residents to seek care inappropriately. Therefore, specific residency requirements are needed. Residency is the basis for eligibility under the single payer model. All residents are covered, regardless of income. Residents of contiguous states who work in Massachusetts will not be eligible for coverage under the Massachusetts single payer system. Massachusetts residents who leave the State for more than three continuous months will be responsible for purchasing their own private insurance policy or paying fee-for-service. Residents who need emergency treatment while out of state will be covered under emergency care rules similar to market standards today.

c. Costs and Savings in a Single Payer System[7]

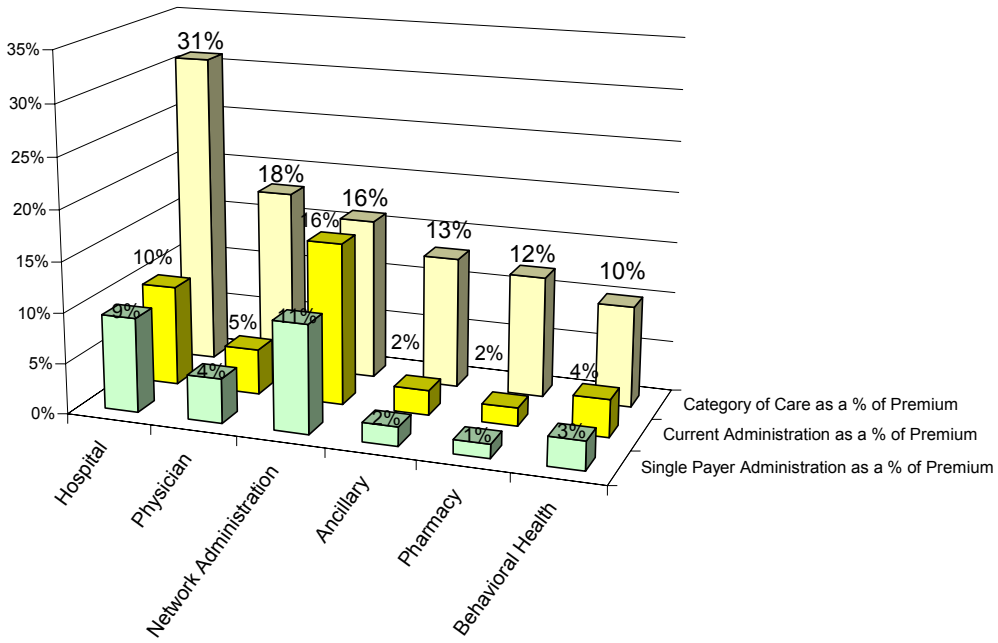
i. Administrative Costs

Differences in cost of a single payer system, relative to today's system, are primarily associated with changes in operating and administrative costs. Savings associated with the single payer model arise from many sources. LECG staff and Advisory Committee members identified over two-dozen broad areas where savings can be realized. We estimated the impacts in over 160 cost centers of providers and insurers/delivery system administrators, based on the summary categories of medical care, insurer expenses, and other payer expenses. For example, LECG estimates that managed care and insurer contracting staff is reduced by 40 percent under a single payer scenario, since provider contracts will continue to exist, but they will be greatly reduced in number and renewal frequency.

[7] LECG estimated expected savings and costs based on actual reported expenses and published data where available. Professional and actuarial judgment and proprietary data were used as indicated. In some cases, experience from other countries with single payer systems was used.

The figure below presents the summarized results of the insurer/delivery system administrative cost analysis under a single payer system. This figure illustrates the current share of an insurance premium dollar that each of these entities devotes to administrative expenses and the respective share that we estimate would exist under a single payer scenario.[8]

Single Payer Administrative Cost Comparison



To represent Single Payer Agency services, LECG and the Advisory Committee agreed to use the current Medicaid and GIC cost structures. The functions and costs currently embedded in State government agencies will continue and expand. The number of enrollees would increase by a factor of four or five relative to current publicly administered programs. Economies of scale and the potential administrative efficiencies of a single payer system result in an estimated threefold increase over current State administrative costs to administer the single payer model, or $506 million.

ii. Insurance Risk in the Single Payer System

The ultimate risk for the cost of care is borne by the SPA. The Commonwealth will need to determine whether this means that the SPA must re-insure its risk in the commercial markets, thereby increasing its cost by three to eight percent. Alternatively, the

[8] The premium dollar shares are shown for illustration only. Including public sector and private sector payers, this is the largest single share of revenues and costs in Massachusetts as shown in the base case.

Commonwealth can assume the risk.[9] LECG assumes that the Commonwealth will take on the risk for the cost of care of its citizens.

The single payer model pools all risk into a single pool. This assures that the young will subsidize the old and the healthy will subsidize the sick.

Risk adjustment means paying the actual risk (cost) adjusted price for care rather than an average or flat rate payment. Depending on the payment methodology used, the SPA will be responsible for risk-adjusted payment rates for services. The administrative complexity of reconciling costs with risk adjustment payments is incorporated into the administrative efficiencies of the single payer system.

iii. Benefit Package Pricing

The benefit package for this model is based on the State's GIC indemnity plan without deductibles or other benefit design limits or enrollment screening.

A standard commercial co-payment adjustment to be paid by consumers is introduced into the calculations. We estimate that members will pay $20 on average per member per month. However, the Advisory Committee also recommends that citizens not be denied service if they are unable to make the co-payments. This is consistent with the single payer system's cornerstone characteristic of access to care for all residents regardless of ability to pay.

iv. Payment Rates to Providers

LECG and the Advisory Committee noted that provider payments are the largest single cost of care. Committee members recognized that fees need to be fair to keep providers in business. However, there was considerable sentiment among Advisory Committee members that fees should be set by the SPA.

Some Advisory Committee members felt that current Medicaid rates, on average, represent a fair fee schedule though some providers may be underpaid. Other members felt that rates should be set at market rates. To accommodate these views, LECG modeled costs under two scenarios; a "low cost" Medicaid fee scenario and a "high cost" market rate scenario.

v. Global Budgeting

Some members of the Advisory Committee voiced support for global budgeting to reimburse facilities and large group practices. Proponents believe that global budgeting will constrain the rate of growth in hospital and large group practice costs. LECG has not observed this to be the case. LECG notes that systems historically based on global budgeting, such as the NHS system in the UK and systems in Germany and the Netherlands, increasingly are using competitive, performance-based contracting.

[9] The single payer advocates in the last legislative session suggested a five percent reserve for risk. This amount is roughly consistent with reserve fund needs calculated by LECG for other national systems. However, LECG recommends having additional financial reserve instruments to guard against catastrophic expenses.

vi. Other Health Insurance

The Advisory Committee members agreed that other private insurance could be sold parallel to a single payer system. This implies that providers and insurers will necessarily maintain the administrative capabilities to bill multiple payers. Members of the Advisory Committee also agreed that consumers should have the option to purchase additional insurance or pay out-of-pocket for services in the private market.

vii. Automobile Medical Coverage

Most costs of health care due to automobile accidents are paid for by the insured's health insurance. Care paid for by automobile insurance medical coverage is primarily a wrap-around to one's health insurance. The Advisory Committee members deliberated this issue and decided to assume "no fault" costs under the single payer model, thus reducing the administrative expense of the system but still providing the care.

viii. Workers' Compensation

Like automobile insurance, the care provided under the current workers' compensation insurance system will be paid for by SPA. The dollars of workers compensation insurance currently dedicated to health care claims is $875 million. These funds would be transferred into the single payer system. Administrative savings associated with these funds in the single payer model are assumed to mirror savings realized by network/insurer administrative services.

ix. Charity Care

Under the single payer model, there is no charity care for Massachusetts residents. However, non-residents seeking care in the State may still require charity care if they are unable to pay for services. Given that the State contains preeminent research and teaching facilities, the probability that people will seek care at these facilities when unable to pay will exist. LECG reduced expected expenses for charity care by 50 percent.

x. Teaching and Research

Health care teaching and research functions in Massachusetts will continue as they have. Data on costs associated with medical teaching and research were provided by DHCFP. Further refinements to this data will be available to the Legislature in the future as the institutions involved improve their data reporting.

xi. Physician Services

Physician services will continue as they have been. Consumers have a choice of physicians. Any willing provider in the State would be permitted to provide care regardless of their network affiliations. However, this will increase administrative costs and may negatively affect utilization rates. Physician quality of care will continue to be monitored by the network administrators, the SPA, and through the certification process.

xii. Hospital Services

LECG and the Advisory Committee identified approximately 80 cost centers for inpatient and outpatient facilities' administrative functions and estimated the expected impact on administrative expenses of a single payer system. For example, regulatory compliance

with respect to Medicaid and Medicare would be reduced by 80 percent under a single payer scenario, since compliance requirements will continue but the SPA will interpret State and federal requirements and mandate compliance requirements for providers. This translates into a reduction of one percent of total premium costs under a single payer system.

xiii. Behavioral Health

Behavioral health services will be provided as they are today. LECG estimated that 37 percent of behavioral health revenues are dedicated to administration. We then modeled cost changes like physician practice administration under a single payer system. The impact of this is a 24 percent reduction in administrative expenses, or a net decrease of one percent of total health care costs.

xiv. Other Acute Care Services

These services are assumed to have administrative cost structures and potential savings similar to physician practices. The net impact of this is a 24 percent reduction in administrative expenses for these services, or a net decrease of less than one percent of total health care costs.

xv. Long-Term Care Services

LECG estimates that systemic, long-term care savings are not significant under the single payer system. In states where community-based programs have been implemented, system wide savings are uncommon. Service improvements are significant, but demand seems to negate savings. In the case of Massachusetts, a home- and community-based waiver program is already in place. Therefore, we would not expect increased demand or savings.

Changes in the cost of providing acute care services associated with long-term care are included in the acute care costs for seniors. Administrative efficiencies for long-term care providers are assumed to be similar to those of network providers. Therefore, the same savings are embedded in this item.

xvi. Pharmacy

Pharmacy is one of the fastest growing segments of health care expenditures. Prices are set in the marketplace.

Under the single payer model, the SPA would have substantial market power in buying pharmaceutical products. The Advisory Committee recommended that a reference pricing system be implemented for brand name medications together with generic substitutes within therapeutic classes. A conservative estimate of savings in the costs of the medications themselves are proxied by the price after rebates are paid to Massachusetts to reflecting the "federal supply schedule" pricing structure.

The LECG model assumes the same administrative cost savings for retail pharmacy providers as physician practices under the single payer model.

d. Costs of operating the single payer health system

Below are the estimated costs of the single payer system in Massachusetts by population risk group, with universal coverage and the single payer fee-schedules. There are no underinsured people in this model. Population wide utilization rates are adjusted to reflect no benefit design limits, no deductibles, and no cost sharing other than the "voluntary" co pays discussed earlier.

The operating costs of the SPA to administer and regulate the system based on current State expenditures to manage Medicaid, adjusted for the size of the population covered, and assuming increased efficiencies, are included. The overall administrative costs are at or below those found in other industrialized countries.[10]

The steady state results of the cost analysis are below.

Universal Coverage, Steady State. Single Payer Cost Analysis

Full Single Payer Cost Analysis			
		Total Expenditures	
Population Groups	**Population**	**Low Cost Pricing**	**"Reasonable" Cost Pricing**
Age 65+	861,206	$ 9,184,209,170	$ 9,184,209,170
Disabled	191,379	3,444,824,160	3,961,547,784
Pregnant women	82,000	541,200,000	541,200,000
Complex pregnancies	8,200	73,800,000	73,800,000
High cost deliveries	8,200	492,000,000	492,000,000
All other individuals	5,228,319	21,582,500,172	24,819,875,197
Average annual copays		1,531,032,960	1,531,032,960
SUBTOTAL:	**6,379,304**	**$ 36,849,566,461**	**$ 40,603,665,111**
Administrative Efficiency Adjustment:		**5.17%**	
Acute Care Single Payer Cost of Services		**$ 34,945,860,041**	**$ 38,506,016,064**
Dental		1,551,618,750	1,551,618,750
Personal auto-medical		277,410,625	277,410,625
Workers compensation		822,828,125	822,828,125
Medicaid long term care		1,786,712,500	1,786,712,500
Non-Medicaid long term care		3,479,387,500	3,479,387,500
Single payer regulation		138,564,699	138,564,699
Single payer administration		506,187,775	506,187,775
Add-on expenditures for teaching/research hospitals		549,213,199	549,213,199
TOTAL:		**$ 44,057,783,213**	**$ 47,617,939,237**

The single payer model is the most comprehensive consolidation of finance and streamlining of care among the three reform models. LECG believes that the single payer system would take the most time to fully implement and prompt the most legal and political debate of the three models.

[10] Note that an administrative efficiency adjustment is made to all services provided to reflect the identified savings at the system administration level in addition to network administration savings incorporated in the pricing models used in the Medicaid pricing schedules. The adjustment is the 5.17 percent savings adjustment that reflects provider savings as calculated in Figure 33, above.

This model is the most dramatic departure from the current state of affairs. Usually system changes of this magnitude take five to ten years to be completed, and, generally they are revised dramatically during the implementation process.

The primary political and legal issue may well become the ascension of health care to the status of a public "right" for residents of the Commonwealth. Ultimately, such a right could imply access to unlimited care and unlimited expense subject to some, as yet undetermined definition of "medical necessity."

Another political and legal issue behind this model is the waiver of federal requirements needed to pool all the federal and self-insured employer direct care payments in the Commonwealth. There is ample precedent for Medicaid waivers, though they are more limited in scope than Massachusetts will need. There is little precedent for the needed Medicare waivers.

The self-insured employer payments require statutory changes in the federal ERISA statutes. Currently the right of a State to require self-insured employers to participate in programs like a single payer system is effectively prohibited under current ERISA statutes. There is and has been ongoing congressional review of these requirements. The Commonwealth's congressional delegation is in the best position to advise the Commonwealth on likely future changes to ERISA.

There is no reason to speculate that the average quality of care in the single payer model will vary much from today.

The single payer model will provide coverage for all residents of Massachusetts. It will substitute a quasi-governmental payer and regulator for the current market's basket of public and private payers and insurers. The private sector health insurance industry will shrink significantly and focus on wealthy consumers who want to augment the services available under the single payer system and niche insurance issues such as counseling or therapeutic massage services as is seen in some European countries.

The economic impacts of the single payer model are complex. LECG conducted an analysis of the redistribution in private and public, federal and state funds in the system. The employment impact is estimated at 9,000 to 20,000 new jobs over the ten-year period due to increased spending on health care; however the net impact on the labor market is in determinant due to structural changes in the insurance industry. The impact analysis results cannot estimate the labor force disruption in the private insurance markets together given the SPA's yet to be determined management, monitoring, and regulatory strategies.

The structural changes will, in the best case, cause a disruption in employment for hundreds and perhaps thousands of insurance industry employees. Disruptions in employment and job search, change, and relocation costs are a significant problem for the individuals affected and a drain on the overall economy when a relatively large industry is affected.

Using Medicaid waiver costs as an initial proxy for limited systemic changes, it is clear that structural reorganizations of this scale are expensive. Medicaid waiver implementations can cost in excess of $100 million over a five-year implementation. Dramatic system reform may cost much more. It is beyond the scope of this project to estimate a detailed set of system specific reform costs, but LECG did provide a conservative, low-range estimate of $134 million in one-time costs in addition to operating and transitional costs in the public and private sectors.

D. CONCLUSIONS

The next two charts compare the models in terms of cost and expected participation.

Cost Comparisons

Model Cost Comparison

Base Case Health Care Spending			**$41,429,496,960**
Total Estimated Population:			**6,379,304**
Model 1A (steady state)		**Per Insured Cost**	**Per Capita Cost**
High Enrollment	$44,233,692,837	**$7,121**	**$6,934**
Low Enrollment	$43,132,034,549	**$7,039**	**$6,761**
Model 1B (steady state)			
High Enrollment	$ 45,345,658,763	**$7,300**	**$7,108**
Low Enrollment	$ 43,857,392,859	**$7,157**	**$6,875**
Model 2A (steady state)			
High Enrollment	$ 45,096,845,175	**$7,069**	**$7,069**
Low Enrollment	$ 44,859,775,687	**$7,099**	**$7,032**
Model 2B (steady state)			
High Enrollment	$ 45,652,032,901	**$7,156**	**$7,156**
Low Enrollment	$ 45,398,084,729	**$7,184**	**$7,116**
Model 3 (steady state)			
"Reasonable Cost" Assumption	$ 48,033,441,680	**$7,530**	**$7,530**
Assumes Current Medicaid Reimbursement	$ 44,395,421,835	**$6,959**	**$6,959**

Although costs are expected to occur over a 5-year ramp-up period, figures represent present values (2002 $s).
Estimated costs subtract out-of-pocket health care expenses of uninsured (but not UCP costs).

The steady state incremental cost of Model 3 ranges from nearly three to six billion dollars, the per capita incremental cost of covering the uninsured is then a weighted $7,400 per person, or $700 more than the current per capita costs today. The difference represents the consistent breadth and quality of care provided under the single payer model.

The estimated number of people covered under each model is presented below.

Population Coverage

Insurance Coverage Comparison			
Total Estimated Population:		6,379,304	
Base Case Coverage:		5,979,903	
Base Case Uninsured:		399,400	
Model 1 (steady state)	**Incremental Coverage**	**Total Coverage**	**Remaining Uninsured**
High Est. Enrollment	231,652	6,211,555	167,749
Low Est. Enrollment	147,778	6,127,681	251,623
Model 2 (steady state)			
High Est. Enrollment	399,400	6,379,303	None
Low Est. Enrollment	339,490	6,319,393	59,911
Model 3 (steady state)			
Enrollment		6,379,304	None

In the shorter term in the development of the Massachusetts health care system, and given the current state budget crisis, LECG recommends that:

- The State focus on maximizing federal matching funds by expanding the Medicaid program to provide coverage for all residents.
- The public sentiment be polled to determine:
  - Whether the expansion should be based on mandatory or voluntary participation, and
  - Whether the benefits provided should be a minimum package or a complete package such as the current Medicaid benefit package.
- LECG recommends that the current budget cuts and programs retrenchments be reconsidered in light of the community health and cost impacts that further disruption in the delivery of care may have upon the more vulnerable elements of society.

In the longer term, LECG suggests that further study of more dramatic systemic reorganizations be continued. The current Massachusetts health care system is clearly

one of the premier systems in the world. However, the costs of the system are becoming prohibitive to the residents of the Commonwealth. The LECG analysis indicates that there are finance, administrative, and delivery system efficiencies that can be obtained with restructuring of the system. To realize these efficiencies it may be necessary to dramatically change the way health care is paid for and delivered in Massachusetts. The current analysis also implicitly highlights the fact that human capital continues to be the single largest cost driver in the delivery of health care.

I. INTRODUCTION

A. BACKGROUND

The Massachusetts Legislature engaged LECG, LLC (LECG) in November 2001 to provide an independent analysis of the feasibility and fiscal implications of establishing a system of consolidated health care financing and streamlined health care delivery accessible to every resident of the Commonwealth. This initiative was mandated by Chapter 141 of the Acts of 2000, Section 32 (Section 32).

In July 2000, the Massachusetts Legislature enacted legislation with the goal of protecting the health and safety of Massachusetts' consumers from certain managed care health insurance practices. Heightened concern over the managed care industry, as well as other issues, led stakeholders and academicians in the State to begin discussions regarding the feasibility of establishing a consolidated health care system. As a result, the managed care legislation in Section 32 provides for the establishment of an advisory committee.

The Advisory Committee was charged with selecting a consultant to complete an independent analysis of the feasibility and fiscal implications of consolidated health care financing and streamlined health care delivery, as described in the first paragraph. Committee members were directed to advise, direct, and consult with said consulting firm on the completion of the analysis. Once the analysis is complete, the Advisory Committee is responsible for its review and submission of any of its own recommendations to the Legislature.

The composition of the Advisory Committee was mandated in Section 32. It consists of 32 members, including the:

- Chair of the House Committee on Ways and Means or a designee
- Chair of the Senate Committee on Ways and Means or a designee
- Chairs of their Joint Committee on Taxation or their designees
- Chairs of the Joint Committee on Health Care or their designees
- Chairs of the Joint Committee on Insurance or their designees
- One Republican representative to be appointed by the minority leader of the House of Representatives
- One Republican representative to be appointed by the minority leader of the Senate
- Secretary of Health and Human Services or a designee
- Commissioner of Health Care Finance and Policy or a designee

One representative of each of the following organizations was also included on the Committee:

- State Labor Council of the American Federation of Labor/Congress of Industrial Organizations
- Associated Industries of Massachusetts
- Massachusetts Business Roundtable
- Massachusetts Municipal Association
- Massachusetts Hospital Association
- Massachusetts Medical Society
- Massachusetts Nurses Association
- Massachusetts Association of Health Plans
- Massachusetts League of Community Health Centers
- Home and Health Care Association of Massachusetts
- Massachusetts Human Services Coalition
- Massachusetts Extended Care Federation
- Massachusetts Law Reform Institute
- Massachusetts Senior Action Council
- Health Care for All
- Mass-Care
- Small Business Service Bureau
- Life Insurance Association of Massachusetts
- Ad Hoc Committee to Defend Health Care
- Service Employees International Union

The Committee is co-chaired by one Advisory Committee Senate member designated by the Senate President and one Advisory Committee House member designated by the Speaker of the House of Representatives. A list of the Advisory Committee members is included as Appendix A.

Section 32 stipulated that the analysis must address the following criteria:

1. Access to affordable health care services that eliminates barriers to such services, medications, and supplies necessary for the prevention, diagnosis, treatment, rehabilitation, and palliation of physical and mental illness is available for all residents of the Commonwealth.
2. Patients have the right, within the terms of their health benefit plan and applicable State statutes, to freely choose their health care providers.
3. The high quality of health care in Massachusetts shall be preserved and promoted.
4. Health services are organized in the most efficient manner possible, including the simplification of administrative procedures and reduction in administrative costs, to promote quality, affordable, accessible patient care.

5. No financial incentives shall be permitted that limit patient access to medically necessary health care services.

Also according to Section 32, the analysis must include, but not be limited to:

- The legal, political, and financial impacts associated with the transition from the existing health care delivery system in the Commonwealth to a streamlined and unified system of health care benefits, which may be administered by the State.
- The projected cost of establishing said system and a detailed account of the savings resulting therefrom.
- The cost of administering the system, including an itemized account of the methodology used to determine cost projections.
- The revenue streams necessary to implement and sustain the system.
- A list of any and all required policy and budgetary changes needed to implement said system.
- An analysis of the system's impact on the State's private health care market, consumers, and the employers who may purchase such health care benefits.

The Legislature's Request for Responses, dated September 24, 2001, asked that the analysis include:

- A description of options for achieving consolidated financing of health care coverage and delivery.
- A discussion of options presented under different scenarios that the State might experience over the next 10 years (for example, varying levels of unemployment, State revenue changes, etc.).

This report responds to the mandate of Section 32. It was prepared by LECG, in collaboration with Mercer Government Human Services Consulting (Mercer) and McDonell Consulting.

B. PROJECT APPROACH

The LECG consulting team used a four-phased approach to complete this project. Each of the phases will be briefly described in the following paragraphs.

1. PHASE I – FACT FINDING, DATA GATHERING, AND BASELINE SETTING

As part of the fact-finding and data gathering component, LECG solicited public input through three means:

- Stakeholder interviews
- Public forums
- Consumer survey

From December 13, 2001 through March 19, 2002, we interviewed a total of 118 health care stakeholders regarding the current state of health care financing and delivery in Massachusetts, and their thoughts on how the system might be improved. These individuals represented the Massachusetts Legislature, State government, health care insurers, hospitals and other health care providers, associations, foundations, advocacy groups, labor unions, academia, and other companies and organizations. A complete list of organizations and agencies is included in Section II. A list of interviewees is included as Appendix B at the end of this document. The stakeholder interview questions are included as Appendix C.

Input by Massachusetts residents was of vital importance to the success of this initiative. For that reason, public forums were conducted on February 25th in Lowell, February 26th in Holyoke, February 27th in Boston, and February 28th in Brockton. To facilitate maximum participation by consumers, the meetings in Lowell, Holyoke, and Brockton were conducted in the evening. A number of the attendees testified regarding their problems/issues with the health care system in Massachusetts and their priorities and solutions for its improvement.

The consulting team also developed a survey for distribution to interested consumers; the survey was not intended to be statistically valid. Its purpose was to solicit the opinions of individuals that attended the public forums or could not be interviewed regarding health care issues. Approximately 400 surveys were distributed at the public forums and to other individuals at their request. The survey was also available at the project's website (www.state.ma.us/healthcareaccess). Through May 2002, 178 surveys have been returned and analyzed.

Other fact finding and data gathering activities focused on determining the health care, services, infrastructure, and financing in the Commonwealth. Sources of information included:

- State and federal agencies
- Private sector health care organizations
- States with similar demographics to Massachusetts

Financing of health care is based on LECG's base case modeling, which considers the flows of payments and expenditures on health care in the State. Insurance coverage by population group and uninsured rates are used to base forecasts of demand, cost, and payments over the next 10 years.

2. PHASE II – INTEGRATION AND ANALYSIS OF THE PHASE I INFORMATION

Working with the Advisory Committee, we developed three models of consolidated health care financing and streamlined health care delivery. These models were based on the results of the Phase I fact finding, and illustrate the range of possible outcomes. Some may require regulatory or legislative changes to implement.

Utilizing the base case, we extended its assumptions to capture and determine the direct financial impacts of each model. Through the base case, we were also able to determine future benefits and costs, utilizing econometric techniques and multiplier analyses.

3. PHASE III – INITIAL RECOMMENDATIONS

During three meetings with Advisory Committee members and other interested stakeholders in June and July 2002, we presented the suggested models and the data assumptions. Based on input from the participants, the models were revised.

4. PHASE IV – FINAL REPORT

This report and the supporting electronic scenario spreadsheets conclude the project. Upon review by the Advisory Committee, the report will be finalized. Any final opinions or recommendations not held by the entire Committee or the consulting team may be submitted to the Legislature in a separate document.

Section II describes the public input process. It also presents the findings of the stakeholder interviews, public forums, and consumer surveys.

II. SUMMARY OF PUBLIC INPUT PROCESS

A. INTRODUCTION

Massachusetts has a long and rich tradition of involved citizen debate in policy discussions and State/local concerns. Citizen involvement is also important to the LECG team and has been used successfully in other consulting assignments. For this project to produce a product that is not only acceptable to the people of Massachusetts but also implementable, the opinions of health care stakeholders and other citizens were a crucial component.

Public input was solicited through three means:

1. Stakeholder interviews
2. Public forums
3. Consumer survey

From December 13, 2001 through March 19, 2002, we interviewed a total of 118 health care stakeholders regarding the current state of health care financing and delivery in Massachusetts, and their thoughts on how the system might be improved. These individuals represented the Massachusetts Legislature, State government, health care insurers, hospitals and other health care providers, associations, foundations, advocacy groups, labor unions, academia, and other companies and organizations. The organizations and agencies included:

1. STATE GOVERNMENT

- Commonwealth of Massachusetts, Executive Office of Health and Human Services
- Department of Mental Health
- Department of Public Health
- Division of Health Care Finance and Policy
- Division of Insurance
- Group Insurance Commission
- House of Representatives and Senate, Commonwealth of Massachusetts

2. HEALTH CARE INSURERS

- Aetna US Healthcare
- Blue Cross Blue Shield of Massachusetts
- Fallon Community Health Plan
- Harvard Pilgrim Health Care, Inc.
- Health New England, Inc.

- Massachusetts Healthcare Purchaser Group
- Neighborhood Health Plan
- The Chickering Group
- Tufts Health Plan

3. HOSPITALS AND OTHER HEALTH CARE PROVIDERS

- Boston Medical Center
- Cambridge Health Alliance
- Cooley Dickinson Physician Hospital Organization
- Health Care for the Homeless
- Holyoke Hospital
- Springfield Southwest Community Health Center, Inc.

4. ASSOCIATIONS, FOUNDATIONS, ADVOCACY GROUPS, AND UNIONS

- Ad Hoc Committee to Defend Health Care
- Associated Industries of Massachusetts
- Blue Cross Blue Shield of Massachusetts Foundation
- Greater Boston Chamber of Commerce
- Health Care for All
- Home Health Care Association of Massachusetts, Inc.
- League of Women Voters
- Lighthouse Health Access Alliance
- Massachusetts AFL-CIO
- Massachusetts Association for Mental Health, Inc.
- Massachusetts Association of Health Plans
- Massachusetts Biotechnology Council
- Massachusetts Business Association
- Massachusetts Council of Churches
- Massachusetts Extended Care Federation
- Massachusetts Hospital Association
- Massachusetts Law Reform
- Massachusetts League of Community Health Centers
- Massachusetts Medical Society
- Massachusetts Nurses Association
- Massachusetts Senior Action Council
- Mass Care

- Mental Health and Substance Abuse Corporations of Massachusetts, Inc.
- National Federation of Independent Businesses
- Service Employees International Union, Local 285
- Universal Health Care Education Fund

5. ACADEMIA

- Boston University School of Public Health
- Brandeis University, Heller School for Social Policy and Management
- Harvard Medical School, Department of Social Medicine

6. OTHER COMPANIES/ORGANIZATIONS

- Analog Devices, Inc.
- Foley Hoag, Attorneys at Law
- Raytheon Company
- Small Business Service Bureau, Inc.

We also felt that input by Massachusetts residents was of vital importance to the success of this initiative. For that reason, public forums were conducted on February 25th in Lowell, February 26th in Holyoke, February 27th in Boston, and February 28th in Brockton. To facilitate maximum participation by consumers, the meetings in Lowell, Holyoke, and Brockton were conducted in the evening. Approximately 20 people attended the meeting in Lowell, 75 in Holyoke, 125 in Boston, and 35 in Brockton. A number of the attendees testified regarding their problems/issues with the health care system in Massachusetts and their priorities and solutions for its improvement.

The consulting team also developed a survey for distribution to interested consumers; the survey was not intended to be statistically valid. Its purpose was to solicit the opinions of individuals that attended the public forums or could not be interviewed regarding health care issues. Approximately 400 surveys were distributed at the public forums and to other individuals at their request. The survey was also available at the project's website (www.state.ma.us/healthcareaccess). Through May 2002, 178 surveys were returned and analyzed.

The remainder of this document discusses the findings of the stakeholder interviews, public forums, and consumer surveys. The project team wishes to convey its thanks to each individual who spoke with us, presented testimony at the public forums, or completed a survey. Their time and thoughtful opinions were much appreciated and were considered throughout the completion of this project.

B. STAKEHOLDER INTERVIEW FINDINGS

The interview questions served as a starting point for our discussions with the stakeholders. These questions were developed to guide the interview process and obtain responses on similar issues from the interviewees. Time was allowed in each interview for the stakeholders to discuss any related topics that were not covered during the meeting.

1. CONSOLIDATED FINANCING AND STREAMLINED DELIVERY

In the legislation that established this project, the feasibility of "establishing a system of consolidated health care financing and streamlined health care delivery accessible to every resident of the Commonwealth…" was debated. To begin the discussion, we asked the interviewees to define "consolidated health care financing" and "streamlined health care delivery". There was no uniform definition described by the respondents. Definitions for consolidated health care financing included:

- Combining all financing sources into a single payer
- A single point of control and oversight
- A fully government financed system that builds on current processes
- A universal system (coverage for all) with multiple payers and providers
- One government agency to ensure consistency of payment
- As few payers as possible
- Consolidated funding that involves both public and private entities

Regarding streamlined health care delivery, opinions included:

- Paperwork reduction
- Elimination of paperwork and multiple systems
- A change in where care is delivered and how it is provided
- One billing system, payment mechanism, and reimbursement amount
- Individuals can go to the closest location for care and all gatekeepers but the individual's physician are eliminated

2. ACCESS TO HEALTH CARE

Regarding the issue of access to health care services, interviewees discussed health insurance coverage, availability of providers, cost, transportation, cultural competence, and physician office hours. Although Massachusetts has one of the lowest uninsured rates in the nation (according to information compiled by the Division of Health Care Finance and Policy, the uninsured rate in Massachusetts during 2000 was 5.9 percent for all ages, 8.0 percent for individuals between the ages of 19 and 64, and 3.0 percent for persons under 19 years of age), some interviewees said that coverage needs to be improved for seniors and low income adults, including individuals who are homeless. Another gap in public program coverage that was mentioned was undocumented immigrants.

The State's coverage of children through Medicaid, the State Child Health Insurance Program (SCHIP) and other public programs, was praised by most stakeholders. According to one interviewee, in theory there is entitlement to health care for all Massachusetts' children. However, it was reported that 3.0 percent of the State's children do not have health insurance coverage. This was attributed to a lack of knowledge of available programs or children whose family income required a premium, but the family could not afford to pay that premium.

Other interviewees stated that having coverage is no guarantee of care. A large percentage of dentists, radiologists, anesthesiologists, and dermatologists (particularly in Western Massachusetts) will not see Medicaid patients because of low reimbursement rates. Obtaining dental care on Cape Cod, Martha's Vineyard, and Nantucket was also reported to be a problem. Most interviewees agreed that behavioral health services were difficult for State residents to obtain. Critical service shortages were reported in long-term residential treatment and supported living for children and adults, community-based programs, and social supports (including rental subsidies). Although there is twice the number of behavioral health practitioners per capita in Massachusetts than in other states, it was reported that many will only accept private pay patients.

Interview subjects also reported a shortage of nursing facility beds for residents in need of long-term care services. Since 1980, we were told that 5,000 nursing home beds have been lost because of facility closures or mergers.

Other access issues included an inability to get to providers because of a lack of transportation or inconvenient office hours. Since 6.7 percent of Massachusetts households reported during the 2000 Census that they do not speak English "very well", language and other cultural competency issues were also reported as barriers to care.

ER diversion is a growing problem at Massachusetts' hospitals, particularly in the Boston area. Although this issue is complex and outside the scope of our project, stakeholders attributed part of the problem to use of the ER for non-emergency care, an inability to move ER patients to inpatient beds because beds are filled with patients waiting for residential behavioral health care, and the unavailability of sufficient nursing staff.

Affordability of health insurance and services is also becoming a critical issue for Massachusetts' employers and residents. Employers, both large and small, reported premium increases of 15 to 20 percent over the previous year. Costs are being passed on to employees via increased premiums or cost sharing, or benefit reductions. Paying for prescription drugs is increasingly problematic for individuals, particularly senior citizens and the disabled with no or limited prescription drug coverage.

3. STRENGTHS/WEAKNESSES OF SYSTEM

To ensure that the strengths of the Massachusetts health care system are retained in our proposed options, we asked interviewees to discuss the strengths and weaknesses of Massachusetts' delivery system. The strengths that were described included:

- Quality teaching hospitals
- Excellent delivery system, quality of care, and health care professionals
- Good distribution and diversity of providers
- Political leaders that support health care programs
- Innovative Medicaid program with generous benefit package
- Unique public programs [Insurance Partnership and Uncompensated Care Pool (UCP)]
- Strong health care advocates
- Strong network of community health centers and community based providers
- Extensive citizen support for health care initiatives
- Good health plans with high accreditation and strong customer service
- Tremendous health care resources, including knowledgeable academics
- Large employer participation in health care

As might be expected, certain of the strengths described above created some of the weaknesses or issues described by the individuals we interviewed. The weaknesses included:

- Large health care premium increases caused by medical inflation, prescription drug costs, an aging population, and cost shifting from Medicare and Medicaid
- Lack of coverage for all residents
- Numerous insurance mandates required by the Legislature
- Overly generous Medicaid benefit package
- Lack of consumer knowledge of health care costs
- Most expensive health care system in world; health care costs are 2nd or 3rd in nation among peer states
- Poor reimbursement of all health care providers
- Insufficient inpatient behavioral health beds for adults and children
- Insufficient behavioral health programs at community level, and an insufficient number of providers
- Under-funded behavioral health care programs
- Too many public programs with complex eligibility requirements
- Hospital based delivery system, which produces high costs
- Lack of health insurance coverage for health care workers
- High health care worker turnover
- Shortage of nurses, pharmacists, and radiology technicians, coders, billers, and medical records staff
- Too many health care reporting requirements
- Lack of a well-organized system of care
- Absence of prevention and chronic care in physician training
- Administrative burden and paperwork duplication

- Insufficient number of hospital beds and ER capabilities
- Limited availability of home care
- Excess use of tertiary hospitals and insufficient use of community hospitals
- Increased hospital acuity and reduced nursing ratios
- Shifting of health insurance/care costs from insurers/employers to individuals
- Poor allocation of health care resources across the State
- Poor service availability for the homeless and immigrants

4. BARRIERS TO CONSOLIDATION AND STREAMLINING

The LECG team asked the interviewees what barriers exist to the establishment of a consolidated health care financing and streamlined health care delivery system. Whether or not the stakeholder favored a single payer system, the issue explored by this question is potential barriers to significant change. The barriers that were identified included:

- Time constraints – cannot move from the status quo to a single payer system in a reasonable amount of time
- Resistance to and fear of change by involved parties (including Legislature)
- Lack of financial resources
- Multiple automated systems and administrative requirements
- Private sector profit issues
- Lack of trust in a government sponsored program
- Difficulty implementing a single payer system in a single State (versus a national approach)
- Barriers to including Medicare in any consolidation plan
- Disbelief that a single payer system will work and concern regarding its cost
- Traditions of insurers and providers
- Lack of agreement on approach and oversight process(es)

5. A "PERFECT" HEALTH CARE SYSTEM

So that we could identify the gap between Massachusetts' current health care delivery system and future options, we asked the interviewees to describe the "perfect" health care program. We then asked the interviewees to select a single initiative to fund, given that resources are limited. The majority of respondents stated that the most important issue is access. They were clear that all Massachusetts' residents should have access to affordable health care coverage, including behavioral health services.

Affordability was also of major importance to employer groups and other advocates. At the present time, more and more employers are dropping health insurance coverage or passing costs on to employees because of premium increases. Other most important improvements suggested by the interviewees included:

- Increase the availability of behavioral health services
- Develop governmental agency staffed by medical personnel and consumers to oversee the health care delivery system

Because of the number of improvements that the interviewees suggested, we have summarized them into seven categories. These categories are:

a. Social contract issues
b. Consolidation strategy
c. Benefit package
d. Financial issues
e. Consumer education and quality
f. Implementation process
g. Other

a. Social Contract Issues

This section of the "perfect world" discussion presents the opinions of the interviewees regarding the responsibilities and rights of the Commonwealth and its citizens regarding health care.

- The health care system needs to be maximally just. Money must be spent well, but health care must be available to all. Everyone should have the right to adequate, efficient, quality health care, and be free to choose providers. The system must be accountable and responsive.
- Health care must be a right, not a commodity.
- Health care must be available, accessible, affordable, and suitable.
- Every State resident should have coverage as comprehensive as State employees.
- Every State resident should be required to have health coverage; financial assistance should be available if necessary. Covering everyone is not only a social good, it is an economic good.
- One solution is to decide that health care is an entitlement for all, and move there incrementally.
- Collegiality must be added to the health care system. All stakeholders must work together to achieve a solution.
- There should be an affordable insurance product for all, with sliding fee schedules.
- There should not be an individual mandate; purchasing coverage is an individual decision.

b. Consolidation Strategy

A number of stakeholders supported a single payer system, while others were in favor of an all payer system that reimbursed providers according to rates set by a State agency. Other consolidation comments included:

- The single state agency would not only determine the health care budget and reimbursement, it would also determine where providers are needed and reimburse them accordingly.
- Under a consolidated system, all payers should pay the same way on the same terms. There must be common definitions and structures around billing.
- An incremental approach should be utilized, by first increasing the Medicaid asset limit. Employers should have an incentive to not reduce or eliminate health insurance benefits.
- All state programs should be combined into one and individuals should be allowed to buy into the program.
- The perfect system should build on what already exists. It may be helpful to create a public/private partnership that establishes other buy-in options (such as the GIC).
- Look at UCP spending in certain areas of the State. It may be cost effective in Lawrence, Lowell, or Springfield to purchase coverage for the uninsured through the GIC.
- Administrative simplification should include intake, medical records, billing, formularies, claims processing, credentialing, and reporting.
- There should be a catastrophic plan with medical spending accounts. Individuals should be responsible for the cost of a basic benefit package. There would still be a government role for low-income citizens, but they would have cost sharing responsibilities.
- A short-term strategy is to expand public programs as far as possible, and then work on quality and bulk purchasing.
- Include the underinsured in the UCP with a sliding fee schedule. The uninsured should be allowed to buy into the UCP.
- Consider a two to three year lock in for Medicaid to protect the UCP.
- Care must be delivered in the most appropriate site. Hospitals should work with community health centers (CHCs) to build capacity at the CHCs.
- Long-term care services are costly. Either this part of Medicaid should be federalized or a Medicare Part C should be created to cover long-term care services.
- If the UCP, MassHealth, the Department of Employment and Training (DET) plan for the uninsured, and the Medicaid/Medicare waiver are utilized to their fullest capability, almost everyone in the State would be covered.
- There must be recognition (and incentives) that community hospitals provide the most services and do it most efficiently.
- Health care insurance should cover catastrophic and preventive care.
- Programs to cover the uninsured and underinsured must be streamlined. Medicare plus prescription drug coverage is a good program model. A pilot program should be developed that combines Medicaid, Medicare, and the uninsured into one program with single reimbursement and eligibility systems.

c. Benefit Package

The interviewees' thoughts on the "perfect" benefit package varied from catastrophic coverage to coverage of everything that the individual's physician determined was medically necessary. The thoughts we heard included:

- The benefit package should include all medically necessary services. There is no need for care rationing.
- Universal coverage requires baseline benefits; primary and preventive care must be part of the baseline.
- A perfect system should include unlimited choice of providers and allow the integration of new therapies. It should also provide disease management and preventive care, and offer tiered benefit choices.
- A standardized benefit package should be based on the Medicaid or State employees' programs.
- Children need more home, school-based, and wraparound services.
- The benefit package must be comprehensive and include behavioral health services, public health care, preventive, acute, and chronic care.
- Public programs are currently either categorical or disease oriented. They must be coordinated or integrated.
- There should be sliding copayments and deductibles, even for Medicaid eligibles at the higher income levels. There should be cost sharing for network/out of network usage.
- Medicare is a good benefit package, but better coverage is needed for long-term care services and prescription drugs.
- There should be no copayments; they discourage people from obtaining care.
- Certain mandates must be eliminated. These include invitro fertilization, chiropractic care, and genetic screening. The periodicity of preventive care must be reviewed and tightened by medical experts, preferably at the national level.
- If limits are necessary, premiums and copayments should be adjusted before benefit packages.
- Any benefit package decision must address inappropriate use of the ER and the over prescribing of drugs to senior citizens.
- There must be enough home care, so people can choose to remain at home.
- Care must be designed around the patient, and emphasize case management and patient education.
- We need to return to the basic preventive care model. Health care should cover medical/surgical benefits and basic rehabilitation. Preventive care should be an individual responsibility.
- We need to mobilize social resources for care delivery, and invest capital in innovative solutions, such as time banking and service credits.
- The perfect solution would include a baseline level of health care (preventive and primary care, dental and behavioral health services) for all with people paying based on their income.

- CHCs should have the capability to provide oral health.
- People should be able to choose their primary care physician, even if it is a specialist or a physician extender. They should have access to any or all providers. Preventive care should be incentivized.
- There must be full integration of physical and behavioral health care, so individuals can see behavioral health providers as necessary.
- Health care policy makers need to look at the feasibility of allowing health plans to provide a bare bones product without mandates or other statutory requirements.

d. Financial Issues

Opinions regarding the financing of health care ranged from individual income taxes to improvement of the status quo. Several stakeholders favored the imposition of a $.50 per package tobacco tax and elimination of planned tax cuts. There were also several suggestions for reducing the cost of health care. The stakeholders said:

- A global budget should be created, managed by one State agency and funded by income taxes. The budget would be based on past years' experience and expectations for the following year.
- Health care should be financed by a tax; a cigarette tax is acceptable.
- The State should institute a nursing home user fee; private pay patients and nursing facilities would pay a $10 per day fee. This could then be federally matched for Medicaid recipients who reside in a facility.
- The State should increase the tobacco tax to expand MassHealth coverage to 19 and 20 year olds, parents of SCHIP children, and other gap individuals.
- Funds from the tobacco settlement should be used for health care improvements.
- The State should not institute the capital gains cut and should eliminate the State tax rollback.
- The UCP is a program worth strengthening.
- The health care tax subsidy for businesses needs to be extended to the self-employed.
- Health care should be funded like Social Security; both the employer and the employee should contribute. There should be a separate rate for the self-employed.
- There needs to be a distinction made between universal access and single payer. Single payer advocates have not looked at implementation costs.
- A single payer system could be financed through the elimination of corporate income tax.
- There is enough money in the health care system to provide good care for all.
- Employers should contribute to a health care fund, but they should not be involved in their employees' health care. The health care fund should be supported by a per capita, means adjusted tax.
- Health care should be funded by cigarette and gasoline taxes.

- Funding should come from an employer tax, employee premiums, and a sliding fee schedule.
- Patients need to be moved away from high cost teaching hospitals to lower cost options.
- Pharmacy costs must be controlled with formularies and bulk purchasing.
- The Legislature should pass the reusable medication legislation.
- The primary care system must be supported and advertised. CHCs should be incented to develop networks beyond primary care.
- No further insurance mandates should be implemented without serious cost benefit analyses attached. Given the associated costs, not all mandates are in the consumers' best interest.
- The State should use public money for a public system. The private sector should not be shored up with public funds.
- The State must determine what is a legitimate cost, especially for hospitals.
- Teaching hospitals must downsize programs, focus on clinical quality, deliver what they do well, and determine the best method to deliver it.
- There must be financial recognition that community hospitals provide the most services and do it most efficiently.
- We must look at drug profits and accept a certain level. Prices need to be lowered and drugs need to be government purchased for those that cannot afford them. Money used on drug detailing and marketing should be used for research. If there were price controls on name brand drugs, generics would not be necessary.

e. Consumer Education and Quality

The stakeholders we interviewed expressed the need for significant consumer education regarding healthy lifestyles, the appropriate use of health care services, and the quality of provided care. Some interviewees thought that the Department of Public Health should be much more involved in these initiatives than it is currently. Other opinions included:

- There needs to be optimal health initiatives and increased emphasis on disease management.
- Outreach is vital to ensure that all citizens eligible for public programs are enrolled in them. Consumers must also be educated to use services appropriately.
- Nursing schools and other health care training facilities must be assisted so that capacity can be built.
- The appropriate level of care must be provided in the appropriate setting for the appropriate period of time.
- Teaching hospitals need to create community hospital settings within themselves, so that they can deliver good primary care at a reasonable cost.
- All State residents should have access to information about provider quality and outcomes.
- Health care programs must be simple, so they can be communicated clearly. This includes the Insurance Partnership Program.

- The State's Division of Insurance and the Attorney General's office do a great job monitoring insurers, health plans, and providers. Further regulation is not necessary.
- The health care system should be based on retrospective review, not prior approval. There needs to be a clear grievance process.

f. Implementation Process

When asked about how health care improvements could be implemented, the stakeholders had the following suggestions:

- If there is a law to mandate universal health care, a single entity must guide the implementation process.
- A consolidated system could start with government covered individuals, then move to people covered by their employers.
- As a first step, the Medicaid asset limit should be raised.
- Change should be phased in via pilot projects and involve stakeholders. Citizens need to overcome their resistance to change.
- The public and private sectors should join with the Heinz Foundation to create a single payer drug program.
- A single eligibility system should be developed that would screen individuals for all public programs and transmit the necessary information to the appropriate State agency.
- State policy makers must streamline eligibility and try to reach a seamless system.
- The MassHealth structure should be used to create a long-range plan for additional coverage.
- The public sector (Medicaid and the GIC) needs to increase its use of the Internet and information technology to allow electronic business transactions, such as claims processing, with the health plans.

g. Other

This final group of suggestions does not fit into any of the previous categories. However, we thought they should be included in this document because of their importance to the stakeholders.

- If everyone had health care coverage, citizens would be easier to track. This could be an aid in terrorism prevention/detection.
- There should be a quasi-public authority to provide health care coverage for public workers. Nurses and home health care workers could work for the "quasi" agency and be able to be covered by the State's health care coverage.
- Eligibility requirements for MassHealth must be changed for certain parts of the State with excessive costs of living.
- CHCs and hospitals have staffing issues that must be addressed. Shortages include dentists, nurses, pharmacists, radiology technicians, coders/billers, and medical records personnel. There needs to be loans and other incentives to support recruitment and training programs.

- In the past, public health nurses delivered services to children. Perhaps this should be considered again.
- The State uses its research needs to affect the billing process. It usually pays claims in 90-180 days. There should be tighter payment timeframe requirements.
- Homelessness should be an acceptable category for Medicaid eligibility.
- Training and research should be funded separately, so that public programs are not required to support these activities.

C. PUBLIC FORUM FINDINGS

As mentioned in the introduction to this document, citizen involvement is of vital importance to the completion of this project. In fact, inclusion of the public forums in our proposal was one of the reasons that LECG was selected by the Advisory Committee to complete this initiative.

At the recommendation of the Advisory Committee, we conducted public forums in Lowell, Holyoke, Boston, and Brockton. These forums were conducted on February 25-28, 2002, respectively. With the exception of the Boston forum, the meetings were held in the evening to ensure maximum participation. Approximately 20 people attended the meeting in Lowell, 75 in Holyoke, 125 in Boston, and 35 in Brockton. The majority of the attendees and speakers were advocates of a single payer system. The balance of this section will summarize the issues that were raised during the four public meetings.

Most of the presenters were in favor of a single payer system because of problems they or their constituents (clients, patients, etc.) were experiencing with the health care system. These problems included cost, accessibility, quality, and administrative complexity:

1. COST

- Cost of prescription drugs
- Significant health insurance premium increases
- Increases in deductibles/copayments or benefit reductions
- Inability of health care workers to afford health insurance
- Coverage unaffordable for small businesses

2. BENEFITS AND ACCESSIBILITY

- Waiting times for physician appointments
- Lack of behavioral health services
- Lack of good home care options
- Loss of coverage due to business closings
- Inability to reach providers by telephone
- Inadequacy of Prescription Advantage program

- MassHealth dental cuts
- ER diversions
- Coverage waiting periods

3. QUALITY OF CARE

- Episodic care

4. CURRENT ADMINISTRATIVE EXCESSES

- Excessive administrative burdens on providers
- Medical documentation duplication
- Excess data collection requirements by State

5. OTHER

- Excessive occupational injuries for health care workers

Most of the individuals who testified during the public forums favored a single payer solution to the issues identified above. These individuals wanted a health care system that:

- Provides health care coverage for all Massachusetts citizens
- Covers all medically necessary services, including preventive, dental, and behavioral health care and prescription drugs
- Has no deductibles or copayments
- Has no limitation on choice of provider
- Is administered by a single state agency
- Is funded by a graduated health care tax
- Removes profit from health care
- Reduces amount and duplication of paperwork and other administrative requirements
- Has simplified eligibility
- Keeps current delivery system intact
- Has no waiting periods for coverage
- Requires employer participation

Those speakers that favored a more incremental approach also supported universal access to health care. They were in favor of an additional tobacco tax to fund other MassHealth coverage groups and expansion of the UCP. Another speaker expressed concern over the significant change that would be necessary to implement a single payer system.

D. CONSUMER SURVEY FINDINGS

The consumer survey was not designed or administered to be statistically valid. Its purpose was to solicit the opinions of individuals that attended the public forums or could not be interviewed regarding health care issues. As such, respondents were individuals who cared deeply about the health care system, who were able to attend one of the public forums or receive a survey from a forum attendee.

The survey was meant to gain insight on the availability and cost of health care. It, like the stakeholder interviews and the public forums, was another means of gathering information to guide the economic modeling in later phases of the project.

The survey was available in English and Spanish, and was distributed at the public forums, as requested, and on the website. Of the approximately 400 surveys distributed, as of May 2002, 178 have been returned, for a 45 percent response rate. A copy of the survey is included as Appendix D.

1. SOURCE OF HEALTH INSURANCE

The consumer survey results showed that 73 percent of respondents primarily receive their health insurance through their employer, 10 percent privately purchase insurance, 11 percent receive insurance through publicly funded programs such as Medicare, one percent do not have insurance, and the remaining five percent receive insurance from a combination of employer sponsored, privately purchased, or publicly funded sources.

2. LEVEL OF SATISFACTION WITH ACCESS TO HEALTH CARE SERVICES

When asked about their level of satisfaction with their ability to access health care services, there were varying response numbers depending on the service specified. This seems reasonable since not every respondent would receive long-term care services; thus there would be fewer respondents for long-term care services than for medical care.

Of respondents, 83 percent were either very satisfied or satisfied with their access to medical care. Just over half of respondents, 51 percent, were either very satisfied or satisfied with access to mental health services. However, 65 percent of respondents were not satisfied with their access to home health care, and 72 percent of respondents were not satisfied with their access to long-term care services.

3. NUMBER OF TIMES FORCED TO CHANGE HEALTH INSURANCE

When asked how often they had to change health insurance companies or plans in the past two years, 55 percent of respondents did not change coverage, 26 percent changed coverage once, and 19 percent changed coverage two or more times. One respondent noted that s/he had not changed because there was no other choice, and another changed because his/her employer's offered coverage changed.

4. NUMBER OF TIMES WITHOUT HEALTH INSURANCE

When asked how many times consumers were without health insurance over the past two years, 81 percent of respondents were never without coverage, 11 percent were without coverage once during the two-year period, seven percent were without insurance two or more times, and one percent did not have any insurance coverage during the past two years.

5. NUMBER OF TIMES FORCED TO CHANGE PROVIDERS

When asked how often consumers had to involuntarily change doctors or health care providers, 60 percent of respondents did not have to change providers, 22 percent had to change providers once, and 18 percent had to change providers two or more times. One respondent had to change hospitals because the hospital did not renew its contract with the individual's existing health plan. Another respondent had three or more forced changes because providers refused to accept HMO coverage.

6. WILLINGNESS TO PAY FOR CONSOLIDATED FINANCING AND STREAMLINED DELIVERY

When considering consolidated health care financing and a streamlined delivery system, 34 percent of respondents thought that they should pay less than they currently pay, 35 percent were satisfied with the amount that they currently pay, and 29 percent were willing to pay more than they currently pay. One respondent indicated that s/he should pay less because there would be less duplication, bureaucracy, marketing costs, and profits. Another said that such a system would be less expensive, making it unnecessary to pay more. Other respondents were willing to pay more if coverage were efficient or quality of care improved.

E. CONCLUSION

The purpose of this summary was to convey, as completely and objectively as possible, the opinions and suggestions of the interviewees, forum participants, and survey respondents regarding the state of health care in Massachusetts. Because of the vast amount of information that was collected, not every opinion could be included in this document. However, we have tried to convey the participants' positions in as comprehensive, yet concise, a manner as possible, without making value judgments. The following section begins by describing Massachusetts' current state of health care spending and coverage of its population. Understanding the status quo is the necessary first step to developing potential methods for consolidating financing and streamlining the delivery of health care in Massachusetts.

III. HEALTH CARE FINANCE AND CARE IN MASSACHUSETTS – THE BASE CASE

A. INTRODUCTION

The base case model describes the health care system with a focus on insurance revenues, coverage, and expenditures, and other health care revenues and expenditures in the State of Massachusetts. Because this initiative looks at streamlined financing and delivery of care, we identify costs by type of care purchased, administrative expenditures, and payer.

Creating a model to describe current access to health care coverage establishes the benchmark for care, including individuals covered, the source of their coverage, and the costs of care and administration in the system. The base case is a snapshot of health care access and financing in Massachusetts in 2002. The base case provides a framework to compare the reform models and highlight some of the complexities inherent in health care.

This chapter is divided into four sections. Following the Introduction, Section B provides a description of the health care system in Massachusetts. Section C presents Massachusetts specific data elements of the base case. The data sources and the assumptions behind each calculation are discussed. Additional data details are summarized in Appendix E. Section D describes the summarized results of the base case model in 2002. The last section concludes with a brief discussion of the health care environment in Massachusetts in 2002.

B. FRAMEWORK

The base case describes the health care system from a business model perspective. This model requires that costs not exceed revenues if the business is to continue to operate. This is true regardless of whether the business is for or not-for-profit.

The base case integrates for-profit and not-for-profit components of the system. It includes for-profit earnings, not-for-profit distributions, and uncompensated care charges and payments. For example, insurer costs include an expected two to five percent profit. Because we account for profits (losses) on both the revenue and cost sides of the balance sheet, total revenues equal total costs in the base case model.[11]

The base case simultaneously accounts for the people cared for in the system and the cost of their care. Payer groups such as Medicaid, Medicare, and private insurers payments are considered. These tallies, using age and gender cohorts and actuarial models of

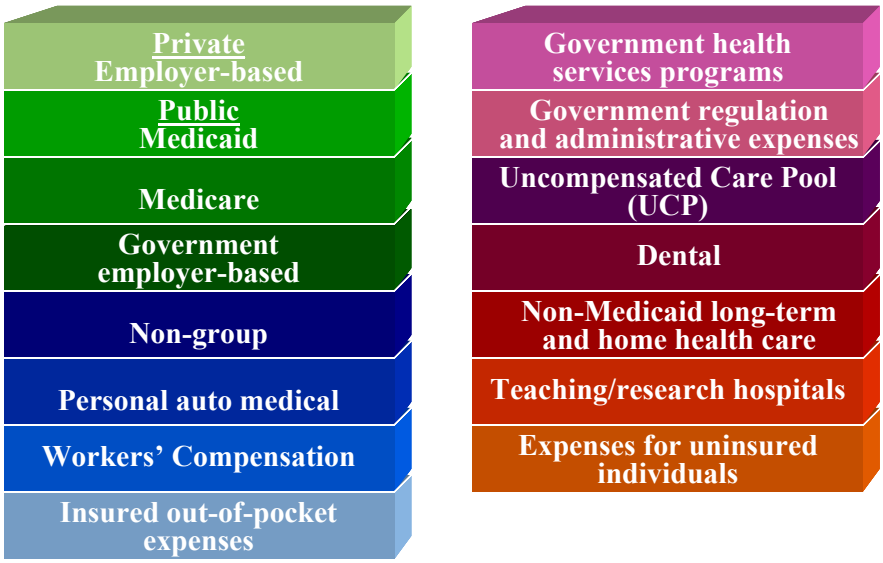
[11] Note that uncompensated care is included in the model through the UCP distributions to hospitals and the cost shift in private and public insurance rates and private pay charges to both hospitals and other provider payments. Professional judgment and previous research has estimated the cost shift at approximately 5 percent of the private sector premium rates.

Massachusetts demographics, allow us to estimate the number of uninsured as well as their age.

1. REVENUES

Fifteen revenue streams are identified in Figure 1 for Massachusetts. These streams cover the major sources of revenue in Massachusetts. Some of the revenue streams are not intuitive; they are defined by the data. For example, insurance-based revenues are always the largest share of revenues; however, the specific kinds of insurers and the public and private splits often vary by state.

Figure 1
Insurance and Other Revenue Streams in Massachusetts

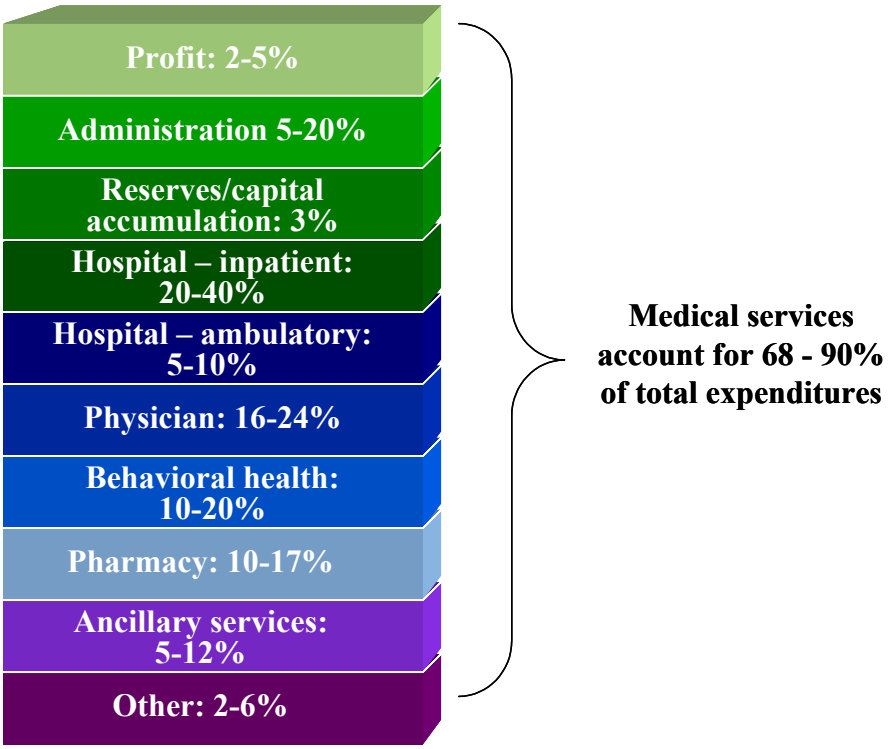


2. HEALTH CARE COSTS BY CATEGORY OF SERVICE PROVIDED

The base case model matches revenues dedicated to specific health care functions to the costs of providing the care. For example, government administrative and regulatory revenue streams are assumed equal to their expected costs. However, when the revenue and expenditure paths are not transparent, it is more difficult to model the relationships. This is particularly so when there are cross subsidies and blurred services being provided. For example, charity care payments and research and teaching are often impossible to tabulate accurately. However, we are able to identify the largest shares of costs by dissecting the costs of health insurance and health care administration/management. Together with some other costs and payments we do know, such the out-of-pocket payments by insured and uninsured individuals, we are able to build a base case model of costs to match the revenues. In this section we address direct care service costs. In the next section we address costs associated with administration.

Figure 2 shows the average shares of insurance-based health care costs, by category of service provided. Note that there are ranges of expected costs associated with most categories. The categories vary by population characteristics of the group and the benefit design. For example, a Medicare population historically has relatively high inpatient and outpatient hospital costs and relatively low behavioral health costs as a proportion of their overall health care costs. The base case derives expected shares of costs for Massachusetts demographics.

Figure 2
Typical Shares of Insurance Based Health Care Costs



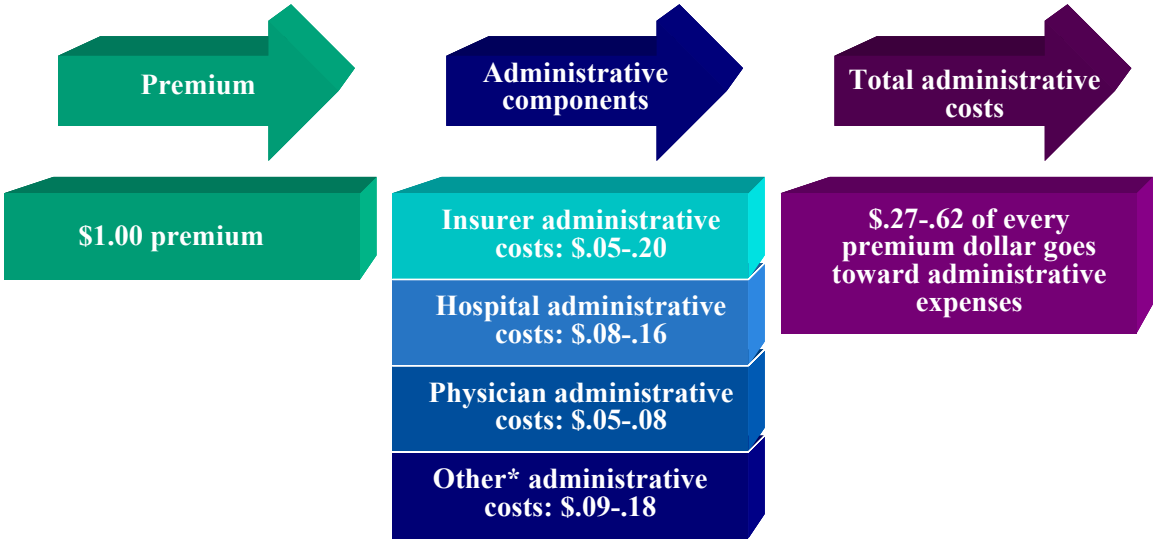
3. ADMINISTRATIVE COSTS

Government costs of regulating the health care industry and administering the Medicaid and other State-based direct care programs are generally recognized as comparatively low or efficient. We adjust government administrative costs for increased economies of scale in the reform models in the next chapter. Federal government costs associated with administering the Medicare, military, and federal employees insurance program are not included in the base case.

Figure 3 shows the range of administrative costs that insurers and providers generally report as a share of an insurance premium dollar. Please note that these shares are not the percentage of each provider's income. For example, since physicians receive $.16 to $.24 of a premium dollar, the percentage of their income dedicated to administrative costs is 25-30 percent of their income, on average. A specific physician, or type of physician,

may spend more or less. Like the shares of cost by category of provider, the population being served, the delivery system design, and local market conditions cause administrative costs to vary.

Figure 3
Administrative Shares of Health Care Insurance

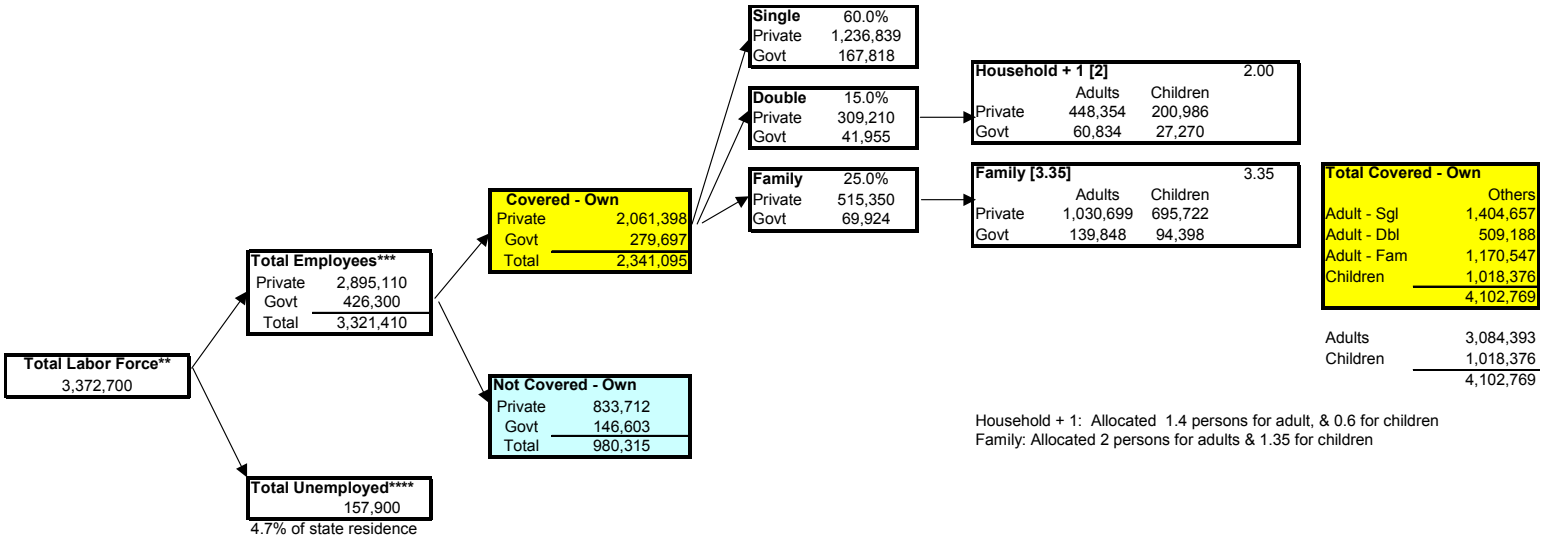


*Other administrative includes ancillary services, behavioral health, and pharmacy.

4. POPULATION, REVENUE AND COST ESTIMATES OF THE INSURED AND UNINSURED

Figure 4 presents an example computation algorithm of covered employee and dependents showing an employee's decision process in accepting health insurance and the estimated allocations among types of coverage purchased, single, double and family. Figure 5 is the logical algorithm used to derive the numbers of insured and uninsured and the costs of each group by type of insurance coverage. This model includes adjustments for expected costs of care by population group, number covered, and the makeup of the covered groups (e.g., adults and children). Since we know the number of people in Massachusetts, we can then derive the residual "uninsured" rate.

Figure: 4
Algorithm of Covered Employees and Dependents*

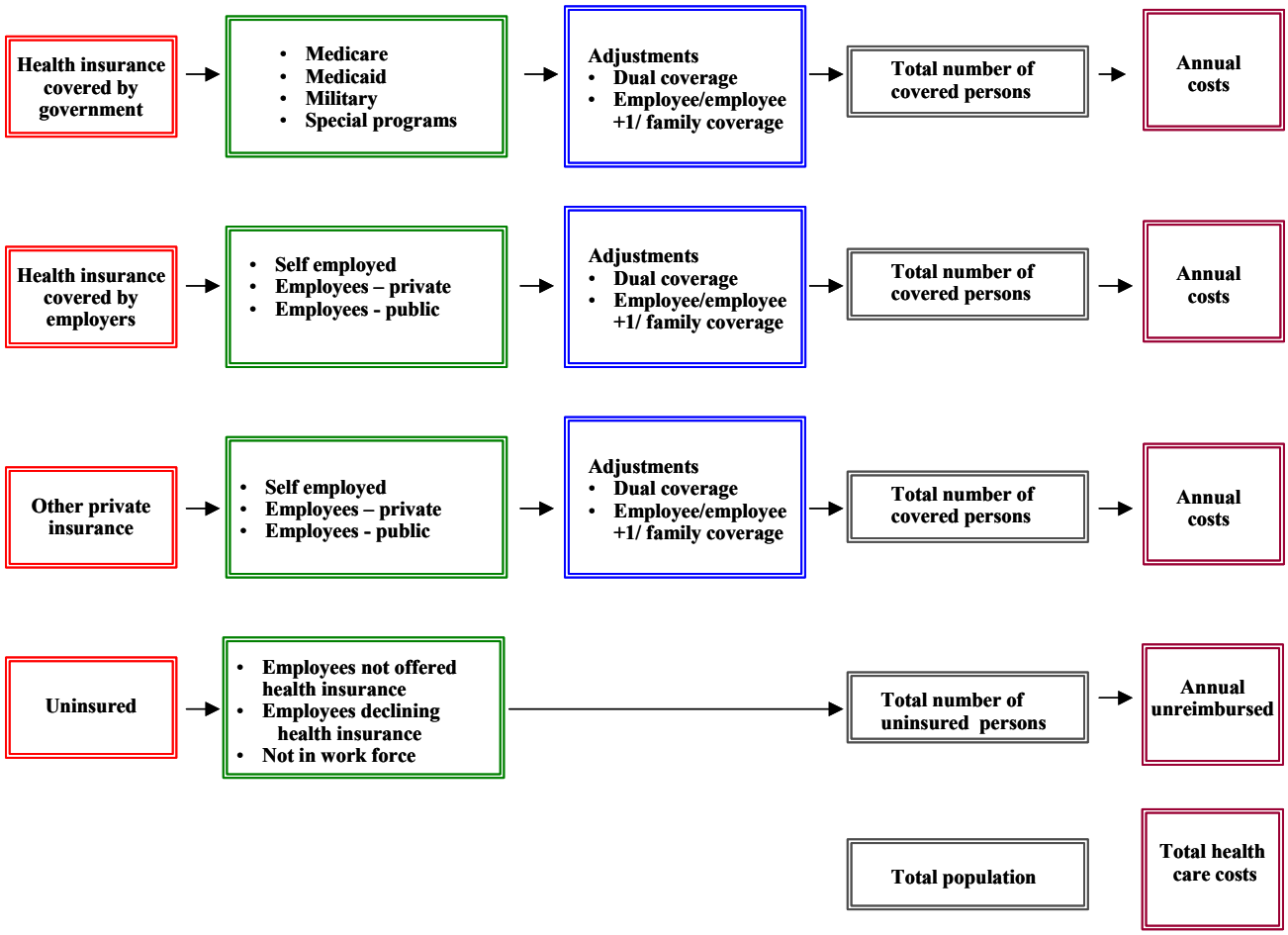


Notes
* These are both private and government employees who were offered, eligible and chose to enroll in a health insurance plan offered by their employer as well as the employees' dependents who gain access to coverage.
**Total labor force includes contiguous State residents.
** Total includes both residents and non-residence; therefore, total employees will not equal total labor force minus total unemployed.
Sources: Single / Family Percentages: Tom Carlson, Wm Mercer
Household / Family Percentages: US Statistical Abstract, Table 81.
Household / Family Factor: Tom Carlson, Wm Mercer.
****Total employed and unemployed are restricted to area residents.

Where available, data were collected at the State level. The relevant categories for which data were collected include:

- Insured individuals and their source of coverage:
  - Government-sponsored
  - Medicaid (including long-term and home health care)
  - Medicare
  - Military coverage
- Employer-based
  - Private employer employees
  - Public employer employees
  - Other private insurance (non-group)
- Massachusetts Health Services Programs
  - Children's Medical Security Plan
  - Others
- Related regulatory administration
- Uninsured individuals in the State

Figure 5
Insured and Uninsured Rate and Cost Algorithm



In addition to the coverage groups explicitly identified in Figure 5, we estimate expenditures (and number of unduplicated individuals covered) in the supplementary health insurance market, such as Medigap and Group Insurance Commission (GIC).[12] Other categories of coverage and expenditures were also estimated as revenue and costs. These categories include:

[12] GIC covers State government employees and offers supplementary coverage to its retirees. The retirees' coverage is primarily a Medicare wrap-around policy.

- Auto-medical coverage
- Workers' compensation
- UCP dollars
- Dental
- Non-Medicaid long-term and home health care services
- Out-of-pocket expenses for insured individuals

Finally, using the estimated number of uninsured individuals in Massachusetts we are able to estimate their out-of-pocket expenses. The numbers of people and expenditures in each category are summed to obtain total population and spending on health care in Massachusetts.

Like any model, clarity in certain aspects of a situation leave other aspects wanting. The base case analysis is a static evaluation of the situation in Massachusetts. The analysis does not explicitly highlight several characteristics of the covered population that are significant in the decision process for policy makers. This is particularly true for the underinsured population.

There is an indeterminate sub-group within the covered population whose insurance coverage is less than they would prefer. These are the underinsured. In some cases underinsurance is due to cost to the consumer, sometimes due to cost to the employer or both. Their packages may have design elements, such as coverage exclusions, high deductibles, coverage maximums or prohibitive co-pays that still makes care cost more than is feasible for consumers. The estimated size of this group is widely estimated. In fact, until "reasonable coverage" is determined the number of the under insured cannot be determined. Looking at premium distributions and professional estimates of benefit design variations the range may be from 5% to 25% of the covered population. When modeling system reforms, only those reforms that uniformly replace current benefit packages with the reform packages can assure adequate coverage for this population.

C. MASSACHUSETTS DATA FOR THE BASE CASE MODEL

In this section we estimate the number of unduplicated individuals and revenues and costs associated with their primary source of coverage. Then we describe and estimate the out-of-pocket revenues paid by the insured. Then we estimate the number of uninsured and their out-of-pocket expenses. The final sections discuss additional revenue and cost estimates not associated with unduplicated individuals. Appendix E presents detailed discussions of the sources for data used.

1. NON- EMPLOYMENT, GOVERNMENT-SPONSORED INSURANCE POPULATION ESTIMATES AND REVENUES

a. Medicaid

The total number of Massachusetts residents covered by Medicaid was estimated at 981,397 in 2002.[13] This population is segmented by age group: 0 to 18 years, 19 to 64 years, and 65 years and older. As of April 31, 2002, 421,121 children were enrolled in Medicaid. Adults aged 19-64 numbered 441,276 enrollees, while adults age 65 and older accounted for approximately 119,000 enrollees.

Figure 7 tracks the average expenditures for Medicaid enrollees.[14] Federal-match dollars are embedded in the numbers. Monthly cost data provided by Mercer indicates that the average annual expenditure per eligible in July 2001 for the TANF Medicaid population was $3,228 for children and $4,452 for adults. Appendix F presents the actual costs of care broken out by category of care for children and non-elderly adults. Medicaid costs for adults over age 65 were priced using the Medicaid "wrap-around", since Medicare is the primary payer.[15]

The model accounts for high-cost enrollees, such as individuals with developmental disabilities and the blind by breaking out acute care, long-term care, and home health care expenditures separately. We estimate that Medicaid will spend $1.34 billion on acute care for disabled patients, $1.5 billion on long-term care and $400 million on home health care in 2002.

The Commonwealth funds and operates a broad array of programs to help close the gap in health care coverage experienced by specific population groups. These programs include those run by the Executive Office of Elder Affairs (e.g., Senior Prescription Advantage) and the Division of Employment and Training's (adult) Medical Security Plan, which purchases health insurance for the short-term unemployed. A thorough description of all available programs are provided in the *Access to Health Care in Massachusetts*, published by DHCFP (May 2002).

These other state and local (federally-matched) programs include health expenditures of the Department of Mental Health, the Department of Public Health, the Massachusetts Rehabilitation Commission, the Executive Office of Elder Affairs and local public health departments. Total expenditures for these programs in 2002 are estimated at $450.6 million including Federal match dollars.

State and local health-related departments' administrative expenses include the Department of Medical Assistance (Medicaid), Department of Mental Health, Department of Public Health, the Massachusetts Rehabilitation Commission, the

[13] DMA, monthly Medicaid enrollment snapshot – April 30, 2002

[14] Unlike most other states, Massachusetts does not pay a separate "kick payment" for pregnant women. Thus, the costs for pregnant women are embedded within the average rates.

[15] These averages include both HMO and FFS expenditures. The average expense for adults includes adults in families with dependent children and pregnant women.

Executive Office of Elder Affairs, Public Health Commissions, Division of Health Care and Policy, UMass Center for Health Care Finance, and local public health departments. Total administrative dollars for these agencies in 2002 are estimated at $360 million and includes Federal match dollars.

Total spending for government-sponsored, federally matched programs in Massachusetts for 2002 is estimated at $8.11 billion.

b. Medicare

Estimates of the number of unique Medicare beneficiaries and their insurance status are more complex than might be expected because of dual insurance coverage. To account for this variable, we used an indirect method to derive estimates for the Medicare categories, based on work status, population demographics, and joint Medicaid and Medicare eligibility data.

There are an estimated 991,467 Medicare beneficiaries in Massachusetts in 2002. See Figure 6.[16] Of these beneficiaries, about 22 percent are estimated to be enrolled in a Medicare managed care plan.[17] While the majority of beneficiaries are elderly, 102,334 adults aged 19-64 and 31,514 children are covered by Medicare. These non-elderly individuals are primarily the blind, disabled, and other high-cost populations.

Total Medicare spending in the State is estimated at $7.52 billion (see Figure 7).[18] In addition, as of December 31, 2001, approximately 179,943 elderly were enrolled in supplementary Medigap plans in Massachusetts (see Figure 6) and another 226,143 seniors were enrolled in Medicare HMO plans, which typically provide drug coverage, although in some cases the coverage may be limited. Total Medigap spending (for premiums only) was about $415 million for the calendar year ending 2001.[19] The estimated percent of elderly with some type of drug coverage, either through supplementary insurance or a government assistance program, is 54.1 percent (see Figure 12). One of the most significant out-of-pocket health care expenditures for seniors is prescription drugs. We estimate that over $921 million will be spent by seniors in 2002 for unreimbursed prescription drugs.[20]

In addition, there are significant numbers of elderly with supplementary policies, either through GIC, Veterans Health Administration (VHA), or some other entity. While we are unable to obtain data on the number of individuals with a GIC or VHA supplementary policy, most of the dollars spent in these programs were captured in Figure 7.

[16] CMS Medicare enrollment as of March 2002

[17] CMS Medicare enrollment as of March 2002

[18] CMS State Profile

[19] We are unable to reliably estimate associated Medigap out-of-pocket expenses (i.e., copayments, etc.); Massachusetts Division of Insurance

[20] This figure is based on previous work done by Mercer/LECG in Washington and Hawaii, which estimated average out-of-pocket spending by the elderly who had no prescription drug coverage. The figure was adjusted to account for seniors who do have a source of prescription drug coverage in Massachusetts.

Figure 6 indicates that there are zero uninsured adults over the age of 65. Although the number is unlikely to be zero, the number of uninsured persons in this age category is too small to be estimated. It would include those who have not worked 10 quarters (or have a spouse who has done so) and thus have not met the contribution threshold for Medicare entitlement, certain undocumented aliens, and some indigenous peoples.

c. Military

The military-based category includes individuals in military service and their dependents, exclusive of those covered by VHA, since that is primarily a wrap-around policy.[21] Census data was used to determine the estimated number of individuals covered by the military's Tricare plan. The model distinguishes between enlisted/veterans, spouses, and dependents receiving coverage. We estimate that 153,103 individuals in Massachusetts have military health care coverage as their primary source of health insurance. Total expenditures are estimated to be just under $418 million in 2002 for this group. See Figures 6 and 7.

d. Children's Medical Security Plan

The Children's Medical Security Plan (CMSP) is a health plan for children and adolescents that covers primary care and preventive services. The program is sponsored by the Department of Public Health and administered by UniCare Life and Health Insurance Company. CMSP is available to children under the age of 19 living in Massachusetts who do not qualify for MassHealth, and who are unable to obtain primary and preventive health care coverage elsewhere. Many of these children are non-qualified aliens who are residents of Massachusetts. For children in families with incomes less than 200 percent FPL, this program is free. For income levels above this threshold, monthly premiums are based on a sliding fee schedule and depend on the number of children within the family enrolled in the program

We estimate that in 2002, there were just under 26,000 children covered by the CMSP at any given point in time. Total expenditures for CMSP came to just over $11 million in 2002.[22]

2. EMPLOYMENT BASED INSURANCE POPULATION ESTIMATES AND PAYMENTS

The employed portion of the labor force[23] was categorized into 10 industry sectors[24] and five different firm sizes[25] using national percentages from the 1999 Medical Expenditure Panel Survey (MEPS).[26, 27]

[21] Since Congressional funding may affect which groups of veterans may be eligible for health care in a particular year, services are allocated in order of priority. Veterans with service-connected conditions are given priority.

[22] Data provided by the Massachusetts Department of Public Health (DPH).

[23] Massachusetts Division of Employment and Training; also, Bureau of Labor Statistics.

[24] Agriculture, fishing, and forestry; mining; construction; manufacturing; transportation, and public utilities; wholesale trade; retail trade; finance, insurance, and real estate; services; and miscellaneous.

[25] The five firm sizes are 1-9 employees, 10-24 employees, 25-99 employees, 100-999 employees, and over 1,000 employees. Employers with 50 or fewer employees are classified as small group employers, and those with more than 50 employees are classified as large group employers (when determining which insurance premium is applicable).

Employer-based insurance is the primary source of coverage for Massachusetts residents, with almost 57 percent of residents who have insurance covered by an employer.[28] To understand the status quo of employer-based insurance, one must know:

- The number of employees that are offered insurance (offer rate)[29]
- Which employees are eligible (usually full-time and often with three months' seniority, not part-time employees)[30]
- The number of eligible employees that accept coverage (acceptance rate)[31]
- The number of dependents for whom the employee is purchasing health insurance[32]

Employers in Massachusetts, on average, pay 77.2 percent of the employee's insurance premium.

Although the components of the model relating to private sector and government employees are separate, the methodology used to obtain relevant figures is similar. The primary differences in the methodology concern firm size, industrial sector, and eligibility. Private-sector employers are grouped by five firm size categories and by 10 industrial sector classifications (see Appendix G). Employer size and industrial classification were not broken out for federal, State, and local government employers.

For government employers, the number of individuals who were part-time versus full-time was estimated using private sector percentages. The offer rate was used to estimate the total number of individuals to whom health insurance coverage was offered.[33] Furthermore, since detailed eligibility and coverage acceptance data are not available for government employees, we assumed these rates are the same as the private sector.[34] For private-sector employers, the total number of full-time and part-time workers was estimated. For each of these two classifications, we determined how many were eligible and how many were not eligible for health insurance coverage.

We estimate that 3,009,922 adults and 1,010,884 children (mostly dependents) are insured through government and private sector employer-based insurance in Massachusetts (See Figure 6). Total expenditures for this category of covered individuals are estimated at $13.5 billion in 2002 (See Figure 7). Figure 4 presents the algorithm by

[26] Agency for Healthcare Research and Quality (AHRQ), MEPS, "Percent of number of private-sector employees by firm size and selected characteristics: United States, 1999." Table I.B.1.a.

[27] Percentages for "offer", "eligible", "eligible and enrolled" by industrial sector are only available at the national level, so relative weights were assigned and applied to the overall percentage in order to obtain individual percentages by industrial sector for Massachusetts.

[28] AHRQ, MEPS

[29] AHRQ, MEPS, Table I.B.2.

[30] AHRQ, MEPS, Table I.B.3.b.

[31] Percent of employees eligible for health insurance that are enrolled in health insurance at establishments that offer health insurance. AHRQ, MEPS, Table I.B.3.b.(1).(a).

[32] Estimates for household factors were provided by Mercer.

[33] Farber, Henry S. and Helen Levy. "Recent Trends in Employer-Sponsored Health Insurance Coverage: Are Bad Jobs Getting Worse?" *Journal of Health Economics*. 19(1): 93-119 (2000).

[34] As discussed below, it was then determined whether they accepted coverage, the number of dependents covered, etc.

which covered employees achieve access for themselves and their dependents (i.e. single, double, and family coverage).

a. Eligible for Coverage

As discussed above, employees who are offered insurance by their employer may or may not be eligible to enroll and may or may not choose to enroll. Tallies of covered employees, their dependents, and their costs depend on several other sets of assumptions that are driven by the employees' eligibility for coverage and their choice to enroll in coverage.

i. Choose to enroll

If a worker chooses to enroll, three types of coverage are defined: employee (single), employee + 1 (employee and spouse or employee and one dependent child), and family (employee and one spouse and dependent children). For employee + 1 coverage, we have estimated a factor of 1.4 for adults and 0.6 for children based on actuarial assumptions. For example, for every 100 employees enrolled in employee + 1 coverage, there will be 140 adults and 60 children enrolled in an employer-based health insurance plan. For family coverage, the actuarial factor is 3.35, meaning that there will be two adults and 1.35 children per enrolled employee who chooses family coverage. This allowed us to determine the number of employees, spouses, and dependents covered through employer-based programs.

Finally, an adjustment is made to account for covered lives that have dual coverage. The most typical form of dual coverage is when both adults in a family work, and one of the parents is covered by two different sources of employer-sponsored insurance. Once these figures were estimated, average premium data were applied to determine total expenditures for employer-based health coverage.[35]

A worker's decision to enroll will be based on his or her perceived need for health insurance coverage in light of the required contribution amount. Small and large group premiums were used to calculate the current cost of employer-based programs.[36] Both premiums included adjustments for industry sector and geographic region.[37]

ii. Choose not to enroll

If a worker was offered coverage by an employer but chose not to enroll, it does not necessarily mean that the employee is uninsured. Based on actuarial results and past experience, we estimated the number of these individuals that received coverage through a spouse, were enrolled in other private insurance, or were covered under Medicaid. Since specific enrollment and expenditure data concerning employees who receive care elsewhere are not available, a process of elimination was used. For example, estimates such as the percentages of employees receiving coverage through a spouse, privately

[35] Premium data was obtained from a private commercial insurer in Massachusetts.

[36] Small group premium applies to employers with less than 50 employees, and large group premium applies to employers with more than 50 employees.

[37] Industrial weights are applied to the 10 different sectors mentioned above. Regional adjustments included calculating averages for Boston and non-Boston regions.

insured, or on Medicaid are known. Those who choose not to enroll and are not covered by another form of insurance are counted among the uninsured.

b. Not Eligible for Coverage

Similar to employees who choose not to enroll in employer-sponsored coverage, part-time and full-time employees who are not eligible for coverage are accounted for in other sections. These employees are either uninsured, enrolled in other private insurance, covered by a spouse, or in Medicaid or Medicare.

3. INDIVIDUAL INSURANCE POPULATION ESTIMATES AND REVENUES

Another category outlined in the model includes individuals who purchased private insurance outside of employer-based programs. For the most part, these are non-group guaranteed issue plans. The total number of persons purchasing other private insurance in Massachusetts was estimated at 31,090 adults and 20,727 children.[38] See Figure 6.

Total expenditures in this category were calculated by multiplying the number of people by the average premium paid for insurance purchased in this manner. The expenditures for other private insurance in Massachusetts were estimated to be $93.2 million in 2002. See Figure 7.

4. REVENUES FROM THE OUT-OF-POCKET EXPENSES PAID BY THE INSURED

Data from the 1997 Consumer Expenditure Survey (CES) provide estimates of out-of-pocket expenditures on copayments, deductibles, and payments for uncovered services for those with employer-based insurance.[39] After adjusting to 2002 dollars, we estimate that privately insured individuals spent approximately $400 per calendar year out-of-pocket, which includes direct outlays on medical services and pharmaceuticals.

While there are copayments and deductibles for Medicare HMOs and Medigap policies, the variation in plans offered makes it difficult to estimate out-of-pocket costs for Medicare enrollees. Out-of-pocket prescription drug expenditures for Medicare recipients were estimated and discussed in the Medicare section of this chapter.

5. REVENUES FROM THE OUT-OF-POCKET EXPENSES PAID BY THE UNINSURED

Information on the number of uninsured, estimated to be approximately 6.26 percent of the population, is based on our modeling process and has been validated by national and statewide survey estimates.[40] The results indicate that 72,099 children and 327,301 adults are without insurance in Massachusetts. See Figure 6 for more information on this

[38] Massachusetts Division of Insurance, Report of Membership in Non-Group Plans as of December 31, 2001.

[39] See "Trends in Out-Of-Pocket Spending by Insured American Workers, 1990-1997," by Jon R. Gabel, et al., *Health Affairs*, pp. 47-57, March/April 2001. Estimates of out-of-pocket expenses are based on income level, the average is $400 per worker with employer based coverage. Low-income workers, less than $20,000 annual income spend $364. Middle-income workers, between $20,000 and $50,000 annual income spend $392. High-income workers, greater than $50,000 annual income spend $452 in out-of-pocket costs per year. All of these estimates are in 1990 income dollars.

[40] In 2000, the Commonwealth estimated that 5.9 percent of the total population was uninsured. A weak economy since 2000 has caused that number to grow.

population. The total uninsured population is derived by subtracting the estimated population for each category, i.e., Medicaid, Medicare, employer-based, from the total population of children and adults.

Since these individuals do not pay premiums for health insurance, the relevant expenditure is out-of-pocket payments to providers. This is not un-reimbursed care. Out-of-pocket payments by the uninsured are based on a Robert Woods Johnson-funded survey of health expenditures by uninsured across seven states from 1989-1992. Costs were trended forward and normalized to Massachusetts' cost of medical care using the medical care spending index to 2002. Total out-of-pocket expenditures by the uninsured are estimated to be almost $356 million in 2002.

6. OTHER INSURANCE REVENUES

a. Workers' compensation

Dollars spent on workers' compensation are estimated for the State because of the belief that under certain health care reform scenarios, medical expenditures currently flowing through workers' compensation insurance may change. Data on workers' compensation claims come from the State's Workers' Compensation Rating and Inspection Bureau (WCRIB). For the calendar year 2001, the Massachusetts workers' compensation loss ratio was estimated at approximately 79 percent for incurred losses over earned premiums. Total dollars flowing through the system were around $875 million.

b. Auto Insurance-Medical

Personal auto insurance that covers medical expenses is primarily a wrap-around policy to an individual's regular health insurance coverage. As in workers' compensation, medical payments under a single payer model may be altered. Dollars spent on medical payments under auto insurance amounted to roughly $295 million in 2001.

c. Dental

We estimate that total expenditures on dental care in Massachusetts will reach $1.65 billion in 2002. [41] This amount includes both dental insurance premiums as well as out-of-pocket expenditures for care.

7. UCP REVENUES

The UCP pays for medically necessary services provided by acute care hospitals and community health centers to low-income uninsured and underinsured people.[42] Patients can apply for free care at any acute care hospital or community health center. The creation of the Pool was intended to help pay for the costs of providing care to the uninsured, and also to eliminate financial disincentives that a hospital might have for providing such care. Since its inception in 1985 as a financing mechanism to distribute the burden of free care, the Pool has evolved into a key component of the Commonwealth's health care safety net, ensuring access to needed health care services for people with no other source of coverage.

[41] CMS data

[42] Private physicians, specialists, independent care groups, and independent laboratory fees are not reimbursable by the UCP.

Calculations on UCP dollars contained in this report are based on the most recently available data from DHCFP. The Division uses a Pool Fiscal Year (PFY), which corresponds to hospitals' fiscal year (October 1 to September 30). The UCP is primarily funded by three sources: an assessment on acute care hospitals' private sector charges; a surcharge on payments made to hospitals and ambulatory surgical centers by payers, including HMOs, insurers, and individuals; and an annual appropriation from the Commonwealth's General Fund. Smaller amounts from other sources may also be available in some years. In PFY 2002, total funds available for uncompensated care equaled about $460 million.

To qualify for assistance from the UCP, individuals must be Massachusetts residents.[43] In addition, to qualify for full free care, family income must be less than or equal to 200 percent of the federal poverty level (FPL). Families with incomes between 201 and 400 percent FPL qualify for partial free care. The patient is responsible for a deductible based on his or her family income.[44]

Preliminary data indicate that the average family income for free care applications is about $9,900 per year, and the average family size is 1.5. Fifty-five percent of free care applications come from females, and 45 percent come from males. Only 11 percent of applicants are age 18 or under. Currently, nearly 91 percent of free care applicants qualify for full free care, and nine percent qualify for partial free care.

As noted above, in PFY 2002, total funds available for uncompensated care equaled about $460 million; of this $66 million was appropriated from the Commonwealth's General Fund. To avoid double counting of revenues already credited to payers and providers, the base case only adds the Commonwealth General Fund appropriation as additional funds dedicated to uncompensated health care services.

8. OTHER GOVERNMENT EXPENDITURES (ADMINISTRATION REVENUES)

a. Medicaid and GIC Administration

Administrative expenses to operate the State's GIC program amounted to approximately $625,483.

b. Other Regulatory and Administrative Expenses

The costs of operating all other health care-related State programs (besides Medicaid, GIC, and the programs that qualify for Federal matching) in FY 2002 were about $29.4 million.

[43] A resident is someone living in the State with the intention of remaining indefinitely. Non-Massachusetts residents are eligible for emergency or urgent care services only.

[44] See the UCP PFY00 Annual Report, issued August 2001, for more details.

9. UNDUPLICATED REVENUES FOR TEACHING AND RESEARCH HOSPITALS

The DHCFP assisted us in determining an estimate of funds received by teaching and research hospitals for those functions. For 2002, this amount is estimated at $549 million.

D. BASE CASE RESULTS

Figure 6 presents the summary estimates of population groups for 2002 for Massachusetts by insurance status. Figure 6a presents the uninsured estimates for Massachusetts, by income level for 2002 (As noted earlier, these estimates were recently increased slightly by the DHCF) Figure 7 presents our estimates of the costs of care for each group, by the same categories as Figure 6. Each result reflects our best estimate of the state of health care coverage and costs, as they currently exist in Massachusetts.

Figure 8 shows the relative shares of these costs by their respective revenue streams.

Figure 6
Total Estimated Insured and Uninsured Populations
for Massachusetts and Source of Health Care Coverage
2002

	Children	Adults 19-64	Adults 65+	Total
Insured Individuals and their Source of Coverage				
Government sponsored				
Medicaid	421,121	441,276	119,000	981,397
Medicare	31,514	102,334	857,619	991,467
Medicare supplemental policy holders			179,943	
Medicare beneficiaries with drug coverage			535,558	
Military coverage	41,000	94,000	18,103	153,103
Private employer-based	896,708	2,715,892		3,612,600
Public employer-based	121,668	368,501		490,169
Other private insurance (non-group)	20,727	31,090		51,817
Children's Medical Security Plan	26,000			26,000
Subtotal	1,558,738	3,753,093	994,722	6,306,553
Less dual coverage	55,149	137,984	133,516	326,650
Uninsured Individuals in the State	72,099	327,301	0	399,400
TOTAL ESTIMATED POPULATION	**1,575,688**	**3,942,410**	**861,206**	**6,379,304**

Source: LECG Base Case Model

Figure 6a
Uninsured in Massachusetts by Income Level

Uninsured by Income Category

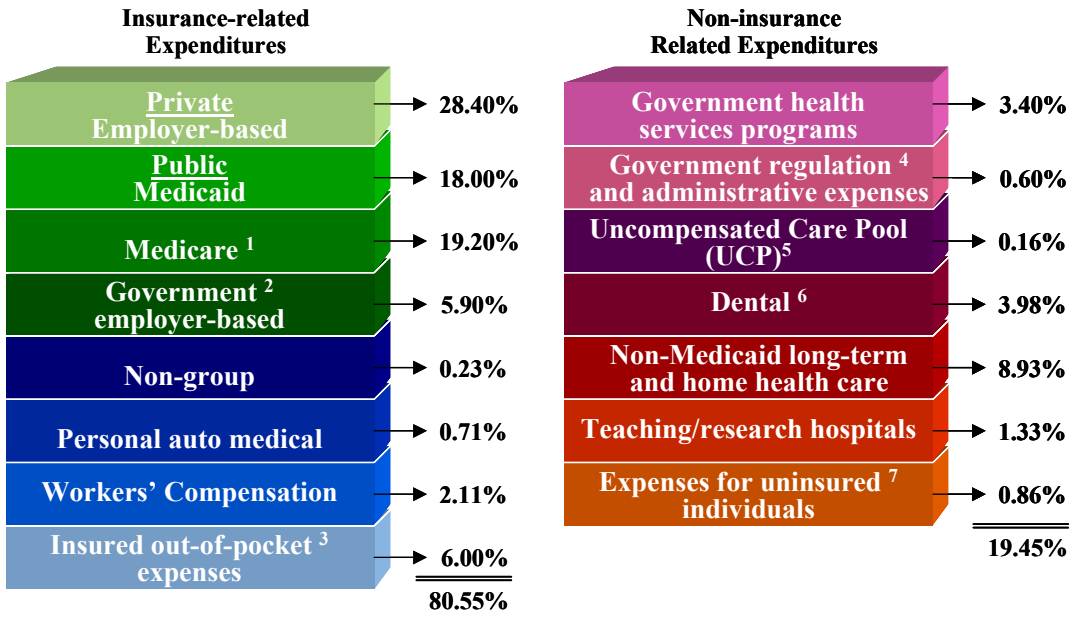
	Children	Adults 19-64	Total Uninsured
Uninsured Individuals in the State	72,099	327,301	399,400
Uninsured Below 200% FPL	32,445	147,285	179,730
Uninsured Between 200%-300% FPL	14,420	65,460	79,880
Uninsured Above 300% FPL	25,235	114,555	139,790

Figure 7
Total Estimated Health Care Expenditures
in Massachusetts for the Insured and Uninsured Populations
2002

	Children	Adults 19-64	Adults 65+	Total
Insured Individuals and their Source of Coverage				
Government-Sponsored (Federally-matched)				
Medicaid	1,355,666,909	1,962,270,753	953,555,533	$ 4,079,493,195
Medicaid - long-term care				1,500,000,000
Medicaid - home health				400,000,000
Medicaid-disabled				1,341,015,525
Other State and local programs				450,600,000
State and local administrative expenses				360,000,000
Total Federally-matched health expenditures				8,131,108,720
Other government-sponsored expenditures				
Medicare	239,129,883	776,523,771	6,507,706,745	7,523,360,399
Medicare supplemental insurance				415,315,050
Medicare out-of-pocket pharmacy				921,176,946
Military coverage	111,782,284	256,281,334	49,356,775	417,420,393
Health services programs				940,400,000
Children's Medical Security Plan	11,090,875			11,090,875
Other governmental expenditures				
GIC administration				625,483
Other regulation and administration expenses				29,453,330
Private employer-based	2,923,758,403	8,855,291,255		11,779,049,657
Government employer-based	436,883,439	1,323,204,440		1,760,087,880
State government retirees (GIC)				275,000,000
Other				
Non-group	37,308,240	55,962,360		93,270,600
Personal auto-medical				295,000,000
Workers' compensation				875,000,000
Uncompensated Care Pool				66,000,000
Dental				1,650,000,000
Non-Medicaid long-term and home health care				3,700,000,000
Insured out-of-pocket expenses				1,641,107,580
Subtotal	**4,641,428,353**	**11,850,367,113**	**7,510,619,053**	**40,524,466,913**
Add-on expenditures for teaching/research hospitals				**549,213,199**
Uninsured individuals in the State	64,231,643	291,585,205		355,816,848
TOTAL ESTIMATED HEALTH CARE EXPENDITURES	**$ 4,705,659,996**	**$ 12,141,952,318**	**$ 7,510,619,053**	**$ 41,429,496,960**

Source: LECG Base Case Model
See Appendix E for source details

Figure 8
Shares of Estimated Health Care Revenues in Massachusetts



Notes
[1] Includes expenditures on Medicare supplemental policies.
[2] Includes insurance expenditures for retirees of State government and non-DVA military coverage.
[3] Includes out-of-pocket pharmacy expenses of the elderly.
[4] Includes administration expenses for Medicaid and GIC programs.
[5] $66 million represents the unduplicated annual dollars allocated to the UCPI; total dollars in the Pool were just over $450 million in FY02, much of which comes from surcharges on hospitals and other providers.
[6] Information was not available to break out dental insurance coverage versus out-of-pocket expenditures.
[7] These are estimated out-of-pocket expenses that uninsured individuals pay directly for health care, which is distinct from UCP dollars.

The next set of results presents the estimated shares of insurance-based expenses in Massachusetts by category of care provided. These results are based on a weighted blending of shares in the public and private sectors in Massachusetts. The weights are also set to reflect the overall demographics of the population and the delivery systems used in Massachusetts today. Among the characteristics taken into consideration are: the relatively high managed care penetration rate in the private sector market place, the size of the Medicaid program and the size of the teaching and research components of the hospital industry in the Boston metropolitan area. Population demographics include the relative size of the senior citizen population, the relatively large and young resident university student population in eastern Massachusetts, and the relatively wealthy and educated middle class population spread throughout the State.

Figure 9 presents the estimated breakdown of costs per health insurance dollar in Massachusetts in 2002. Public and private insurance payers pay for the majority of care. The weighting used represents the mix of payers and population demographics in Massachusetts.

Figure 9
Breakdown of Costs per Health Insurance Dollar

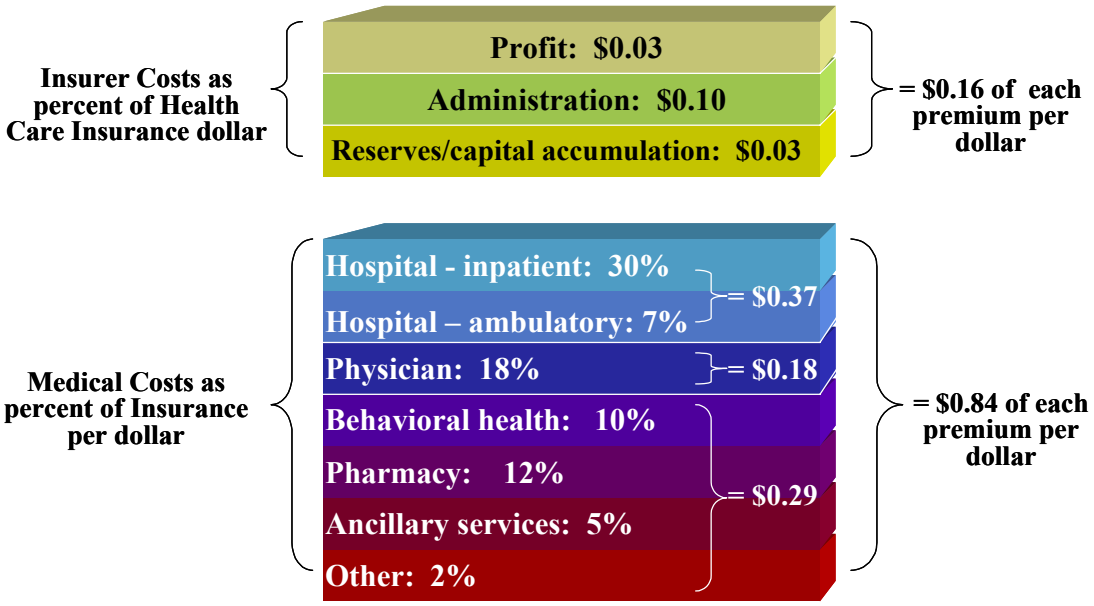
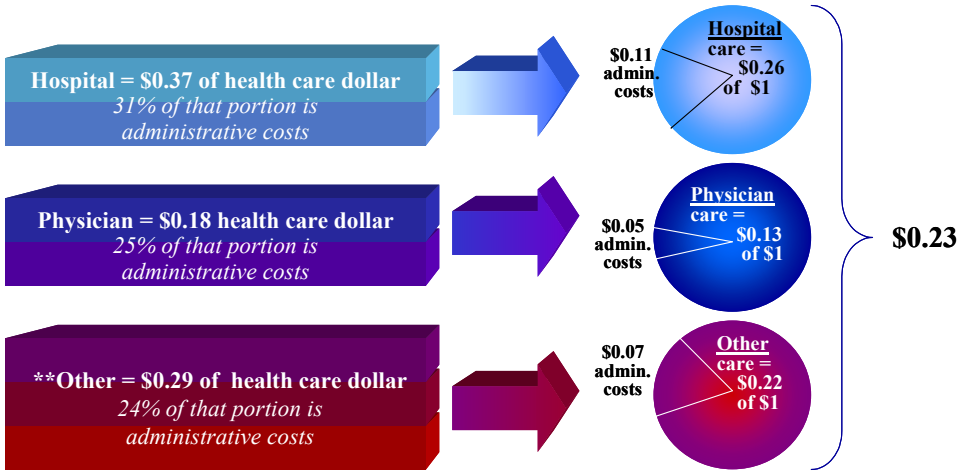


Figure 10 presents base case estimates for the administrative burden by provider type in Massachusetts. These shares are estimated based on professional judgment, suggestions of the Advisory Committee members, and a review of the literature. Like the shares of cost of care in Figure 9 calibrations were made to reflect the Massachusetts tapestry of delivery systems in place in 2002.

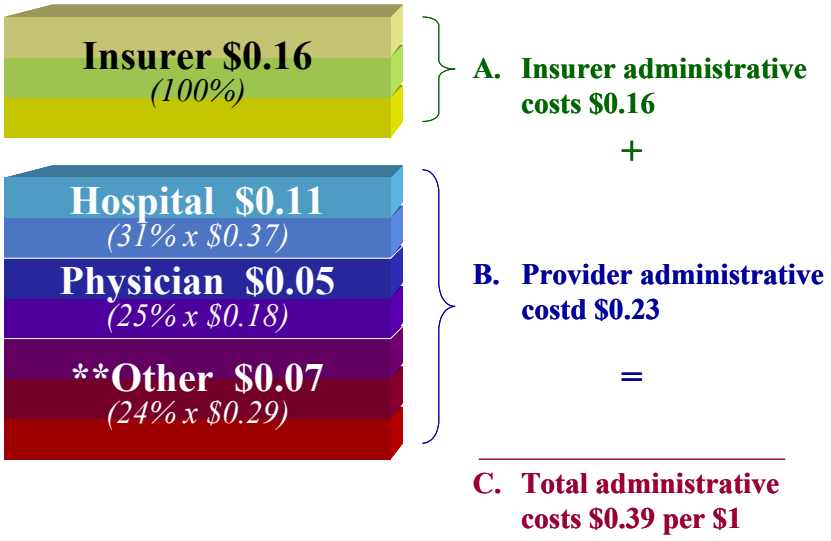
Figure 10
Administrative Share of Provider Costs



Notes
* Includes profit and reserves
**Other category includes ancillary services, behavioral health, and pharmacy

Figure 11 summarizes the estimated base case administrative costs for insurers in Massachusetts in 2002. These estimates are based on a combination of national and local market influences. Where local market information was not available, or was inconclusive the mean administrative cost was used as the best linear unbiased estimator.

Figure 11
Total Administrative Costs per Premium Dollar



Note
*Other category includes ancillary services, behavioral health, and pharmacy

The cost of prescription drugs is a significant health care issue in Massachusetts and the nation. Figure 12 shows the base case estimates for prescription drug coverage for senior citizens in Massachusetts.

An evaluation of the health care environment in Massachusetts depends on one's perspective and expectations. The popular press, public testimony, and our expert interviews confirm several significant cost increases in the face of a slowing economy. Employers and employees are facing double digit increases in premiums for 2003. Small business reports increased taxes and decreased services.[45] Community hospitals and long-term care providers are reporting ongoing losses that may well force their closure. The Governor's task force on health care last spring reported that Medicaid hospital rates may well be significantly below reasonable reimbursement.

In Massachusetts, the cost of charity care is paid by a combination of provider charity, direct payments to providers and indirect subsidies, popularly known as the health care "cost shift."[46] LECG and other researchers have determined the average cost shift as

[45] Small Business Service Bureau, Inc., memo to LECG, dated September 20,2002.
[46] Note that the existence and magnitude of cost-shifting is a subject of debate in the literature.

represented in increased provider charges (costs) and insurance premiums (revenues) to be between three and ten percent nationally. We estimate that the cost shift in Massachusetts is no more than 5 percent because of the relatively low uninsured rate and the UCP.

Being insured does not assure the insured of complete coverage. In Massachusetts the rate of underinsurance is not known. LECG found that the mandated insurance benefits in Massachusetts are relatively broad compared to other states. The level of out-of-pocket payments can roughly measure the impact of underinsurance by the insured. In Massachusetts these payments are similar to the national averages.

Figure 12 – Senior Citizen Drug Coverage

Total Massachusetts Medicare Plan Members According to Prescription Drug Coverage as of December 31, 2001	Total Membership Individual & Group
All Medigap Plans	179,943
All Medicare HMO Plans	226,143
Total of Medigap and Medicare HMO Plans	406,086
Number of Medicare Eligibles [2]	989,902
% of Medicare Eligibles with Medigap or Medicare HMO Drug Coverage	29.3%
Total with drug benefit coverage (both limited and unlimited) in Medigap or Medicare HMO plan	289,708
Total with drug coverage (unlimited) through DMA's MassHealth Program [3]	172,070
Total with drug coverage (unlimited) through DMA's CommonHealth Program [4]	6,113
Total with drug coverage (unlimited) through the Executive Office of Elder Affairs' Prescription Advantage program [5]	67,667
Total with drug coverage through private insurance or HMO or government plans	535,558
% of Medicare eligibles with drug coverage	54.1%

Notes

1 Includes all persons with Medicare supplement and Medicare HMO coverage, including enrollees in both group and individual Medicare plans, as well as those enrolled in closed, open, and Medicare wrap-around plan.
2 CMS December 2001.
3 DMA as of December 31, 2001.
4 DMA as of December 31, 2001.
5 Executive Office of Elder Affairs as of December 31, 2001.

The following chapter describes the three reform models selected by the Advisory Committee. It also presents the coverage range, cost, and revenue sources for each model and discusses potential implementation issues.

IV. REFORM MODELS

A. INTRODUCTION

The base case model is LECG's quantitative analysis of the current situation in Massachusetts. It is designed to provide a framework to develop, analyze, and compare the reform models presented here. The models were designed to provide consolidated financing and streamlined delivery of health care services in Massachusetts.

Under the direction of the Advisory Committee, LECG designed and analyzed three reform models. Each model follows the mandate of the enabling legislation, though LECG and the Advisory Committee have included co-payment options as an exception to the enabling legislation for discussion purposes.

The Advisory Committee, interviewees, and public meeting participants were all asked to consider Massachusetts' social contract when developing their recommendations. No formal votes were taken and consensus was not reached. There were several areas of general agreement:

- The Commonwealth has not implicitly or explicitly determined that health care is a right.
- If the right to health care is asserted in the Commonwealth this must necessarily be balanced with the recognition that resources are limited. Therefore, care must ultimately be subject to fiscal and ethical constraints, for example the standard of "only medically necessary" services being covered.
- Citizens should contribute toward the cost of care, up to their ability to pay. However, medically necessary care should not be withheld because an individual is unable to pay for it.
- Not all participants agreed with the consultants' proposed income threshold of 300 percent of the FPL, above which an individual should be expected to pay for their own health insurance. Some felt this was too low and some too high an income level. In 2002, 300 percent of the FPL is $36,200 for a family of four.
- High cost individuals (for example, those with chronic diseases requiring ongoing care) should not be responsible for the increased cost of their care. Society should pay the costs of care above the mean.
- Employers continue to benefit from a healthy work force. Therefore, employers should continue to directly contribute to the health care costs of employees, as a cost of doing business.[47]

[47] Economic theory predicts that the cost of health insurance is a part of an employee's total compensation; therefore if an employer does not provide and subsidize health care the employee's compensation is inflated by the marginal value of the health insurance to the employer. However, tradition and efficiency of collection support the continued explicit participation of employers in the health care financing system. This practice is confirmed in most countries, health insurance financing is tied to employment or employment-based income with holds.

Under the direction of the Advisory Committee, LECG designed three reform models for consideration. These models are:

- Medicaid Expansion Model
- Mandated Basic Benefit Package Model
- Single Payer System Model

Each reform model:

- Provides for health care insurance for all citizens
  - Universal participation is voluntary in the Medicaid Expansion Model. LECG estimates that this will result in a significant number of people remaining uninsured after five years post implementation.
  - Universal participation is mandatory in the Mandated Basic Benefit Package Model and the Single Payer System Model. The mandatory compliance in the Mandated Basic Benefit Package Model is likely to be less than perfect. Therefore, a number of Massachusetts citizens may choose to remain uninsured. The Single Payer System Model should result in universal coverage. However, finance compliance will remain imperfect as discussed below.
- Provides for consolidated financing of care
  - The Medicaid Expansion Model and the Mandated Basic Benefit Package Model consolidate financing by expanding the role of the current Medicaid programs in Massachusetts. Government will pay an increased share of health care costs, thereby reducing the number of payers and consolidating a greater share of the costs of care.
  - The Single Payer System Model will take the consolidation strategy in the Medicaid Expansion Model and the Mandated Basic Benefit Package Model to its logical conclusion. All care is financed through government-administered mechanisms.
  - Provides for streamlined delivery of care
  - The Medicaid Expansion Model and the Mandated Basic Benefit Package Model streamline delivery by bringing the currently uninsured into organized systems of care.
  - The Single Payer System Model streamlines the delivery of care by either direct contracting for services or contracting through a limited number of third party organizations/HMO administrators. This provides a uniform level of care throughout the State, and reduces duplication of administrative structures and services.

Discussion of each model begins with a brief description of the methodology used to develop and formulate the model. During Advisory Committee meetings, LECG was sometimes asked to conduct additional analyses or make additional refinements on particular options; these are also described. Information on each benefit package is presented. Estimates are provided on the potential coverage range of each model, its

costs, and financing mechanisms. Finally, a high-level implementation plan is presented and the most important implementation issues are discussed. A brief analysis of each model's potential statewide economic and social impacts are described, including employment and tax impacts.

B. METHODOLOGY

To facilitate the analyses, the same analytic and presentation framework is used for all three models. The number of uninsured covered under each scenario was determined by income level, as defined by the option's target population. In 2002, there were an estimated 399,400 uninsured adults and children in Massachusetts.[48][49] By using the expected income distribution estimated by DHCFP, the number of uninsured were segregated into three income levels, i.e., up to 200 percent FPL (up to $36,200 for a family of four), 201-300 percent (up to $54,300 FPL), and above 300 percent FPL (over $72,400). A table delineating the FPL guidelines for 2002 is included in Appendix H.

The cost of insuring these individuals was determined. The cost is the sum of an individual's annual expected medical costs (based on the benefit package), plus two actuarial adjustments. The first adjustment represents the expected provider reimbursement for that particular option, and the second is a series of adjustments representing the costs associated with that option's delivery system and its administrative costs. The sum of these is the total premium, expressed as a yearly or per member per month (PMPM) amount. This premium is comparable to premiums paid to a private insurer.

There is one sub-group of uninsured with unique costs not captured in the regular premiums. These are the high-risk individuals at various income levels. The cost of insuring these individuals is discussed within each relevant model.

There is also the theoretical possibility of a consumer (and employer) strategy under government-sponsored reforms to switch from private sector to, presumably less expensive (and/or subsidized) public sector insurance. The phenomenon is known as "crowd-out" of private sector insurance in the market place by a public sector substitute. The literature contains estimates of crowd-out of 0% to 20%. LECG's experience in Massachusetts is that there was no crowd out as a result of MassHealth during its initial implementation. Therefore, LECG did not include crowd out in these analyses. Forthcoming data of more recent behavior may require that this issue be revisited.

C. MEDICAID EXPANSION

1. A BRIEF DESCRIPTION OF THE MODEL

The Medicaid expansion model extends Medicaid eligibility to all Massachusetts' residents with income at or less than 300 percent of FPL. In addition to income, the only other eligibility requirements are that the applicant must be a Massachusetts resident, and

[48] The DHCF released an amended uninsured estimate of 418,000 on October 15, 2002; we have not adjusted our estimates.

[49] Data are taken from LECG's base case model.

a citizen of the United States or a legally admitted non-citizen. For discussion purposes, asset limits and other categorical requirements have been eliminated.

Although there are a number of MassHealth programs that currently cover individuals with income at or below 200 percent of FPL, this model would expand eligibility to a small number of Massachusetts with an income at or below 200 percent of FPL who are currently ineligible. New eligibles would primarily include adults with no children under the age of 18 years.

This program would be administered by DMA. Elimination of a number of eligibility requirements would result in a streamlined application, a shortened eligibility determination process, and program and administrative simplification. Because income limits are raised, the fluctuating income of eligible working individuals would not cause such frequent periods of ineligibility, and the number of eligibility determinations/redeterminations would be reduced. To ensure successful program penetration, a targeted outreach program is recommended to reach all eligible Massachusetts' citizens. The delivery system remains unchanged.

The benefit package is the MassHealth Standard program package with the current limitations. These services are:

- Inpatient hospital services
- Outpatient services: hospitals, clinics, doctors, dentists (limited coverage for adults), family planning, and home health care
- Medical services: laboratory tests, x-rays, therapies, pharmacy services, dental services, eyeglasses, hearing aides, medical equipment and supplies, adult day health, and adult foster care
- Mental health and substance abuse services, inpatient and outpatient
- Well-child screenings (for children under age 21); includes medical, vision, dental, and hearing tests, as well as immunizations, prescriptions and non-prescription drugs
- Transportation services
- For disabled adults with Medicare Part B – payment of the Medicare premiums, coinsurance, and deductibles
- For individuals 65 years or older with Medicare Part A – payment of the Medicare Parts A and B premiums, coinsurance, and deductibles

For those individuals with income at or below 200 percent of FPL, there are no cost-sharing requirements. Individuals with income above 200 percent would be required to pay a monthly premium. The monthly premium for one person would be $50; for two people the monthly premium would be $100. The maximum monthly family premium would be $150. There are no copayments or deductibles.

At the request of Advisory Committee members, we determined program costs based on two provider payment levels. The first is DMA's current Medicaid fee schedule. The

second is the current fee schedule plus 20 percent as an estimate of "reasonable compensation."[50]

The first step in the analysis was to determine the incremental cost of coverage for the Medicaid expansion population. Once this was done, the next step was to identify the public (federal and State) and private sector (employer and employee) share of the total cost of coverage. The relevant 2002 federal match rate of 50 percent[51] was used to determine federal and State costs.[52] In-state shares consist of funds from the public sector (State and other funds) and the private sector (employers' contribution and employees' premiums). The actual federal match will not be available until the State negotiates the terms of a revised waiver with Center for Medical Services (CMS).

LECG modeled four scenarios: high federal participation and high expected enrollment; high federal participation and low expected enrollment; low federal participation and high expected enrollment; and low federal participation and low expected enrollment.

The order of contribution to costs for high federal participation is:

- Federal financial participation (FFP)
- Individual
- Employer
- State

Thus, in the high federal participation scenario, the federal match is applied to the total cost of coverage, followed by the individual's share. Then the employers' contribution of 77.6 percent is applied to the residual.[53] The State's obligation is the balance.

The order of contribution to costs for low federal participation is:

- Employer
- FFP
- Individual
- State

In the low federal participation scenario, the estimated average employers' contribution of 77.6 percent is applied to the total cost of coverage, followed by the federal matching rate applied to the residual.

The employees' premiums are based on a sliding fee schedule by income level. For individuals with income less than 200 percent of FPL, no premium is required. For those

[50] The Governor's task force on health care in its final presentation in the spring of 2002 indicated that a provider rate increase of approximately 20 percent is needed to adjust the current DMA rates to a reasonable provider payment level. LECG analysis and stakeholder interviews confirm this as a reasonable estimate.

[51] The current federal match rate for Massachusetts is 50 percent in 2002. Data was obtained from CMS.

[52] The in-State share is the difference between the total cost of coverage and the federal match.

[53] LECG's calculations using data from AHRQ's MEPS, 1999, and LECG base case model.

with income levels between 201-300 percent of FPL, on average the employee pays $50, $100, or $150 a month for single, double, or family coverage, respectively. Employees have a maximum household share of $600, $1,200, and $1,800 per year respectively, based on family composition. Employees earning above 300 percent of the FPL may purchase coverage if they choose but they are responsible for the entire average premium amount.

The remaining cost to fund this enhancement will primarily be the cost to insure "high risk" individuals. LECG estimates that three percent of uninsured adults are high risk and cost approximately nine times the average cost of the typical insured individual.[54] Within all income groups, the State is responsible for paying any cost above the average premium amount. Furthermore, because a Medicaid expansion plan is expected to cover a large proportion of those that now seek financial assistance from the UCP, we assume that the remaining State portion of costs for this model will first be reallocated from the Pool.[55]

To better model the true costs of the Medicaid expansion model, LECG assumed a five-year implementation timeline, known as a ramp-up. Two different participation scenarios were modeled for each income category, a high and a low participation rate. Currently, most individuals with incomes below 200 percent FPL are eligible for Medicaid, although there are certain exceptions such as male adults with no dependents. We expect many new enrollees to come from these currently ineligible categories. In addition, as a result of a new streamlined application and program simplification process, we expect some increased enrollment by individuals who may currently be Medicaid eligible but are not currently enrolled. It is estimated that as many as 45 percent of the uninsured population are at or below 200 percent FPL.[56]

LECG expects enrollment to be greatest (as a percentage of newly eligible individuals) among those between 201-300 percent FPL. Between these income ranges, many adults are employed but cannot afford the employee share of health care premiums. Under the expansion model, the price of insurance to consumers is more affordable; therefore, more will choose to purchase insurance. LECG expects the lowest enrollment rate among those over 300 percent FPL because these individuals usually have alternative health insurance options and will be responsible for the full premium cost if they choose to enroll in the Medicaid Expansion Plan.

The ramp-up assumes best and worst-case enrollment scenarios for each of the three income categories: cumulative enrollments of 40 and 60 percent for families at or below 200 percent FPL, 60 and 85 percent for families between 201-300 percent FPL, and 20 and 40 percent for families over 300 percent FPL. These best and worst-case ranges are based on LECG/Mercer's experience with other states. Based on forecasted trends in health care costs, we assume that costs rise by 3.5 percent each year.

[54] Mercer's actuarial model for high-cost individuals in the general population, 2000.

[55] We stipulate that no more than 50 percent of the UCP's annual budget is reallocated for this purpose.

[56] This percentage is based on an adjusted figure from Access Update: "Health Insurance Status of Massachusetts Adults," DHCFP, Number 3, June 2001.

2. WHO IS COVERED?

Figure 13 presents the high and low estimated participation rates. Assuming these participation rates, Figure 14 illustrates the possible range of enrollees by State fiscal year. Figures 15, 16 & 17 show how many people are covered under the best and worst-case participation scenarios. Figure 18 shows how many people will still be uninsured after implementation of each modeling scenario.

Figure 13 – Estimated Participation Rates by Implementation Year

	Year	Cumulative Average Percent Enrollment	New Enrollees	Cumulative Enrollees
Highest Estimated Enrollment	SFY 2002	24%	94,059	
	SFY 2003	42%	64,503	158,562
	SFY 2004	54%	47,129	205,691
	SFY 2005	62%	25,961	231,652
Lowest Estimated Enrollment	SFY 2002	18%	66,300	
	SFY 2003	28%	37,144	103,445
	SFY 2004	36%	29,556	133,000
	SFY 2005	40%	14,778	147,778

Figure 14 - Highest and Lowest Enrollment Estimates
State Fiscal Years 2001-2005

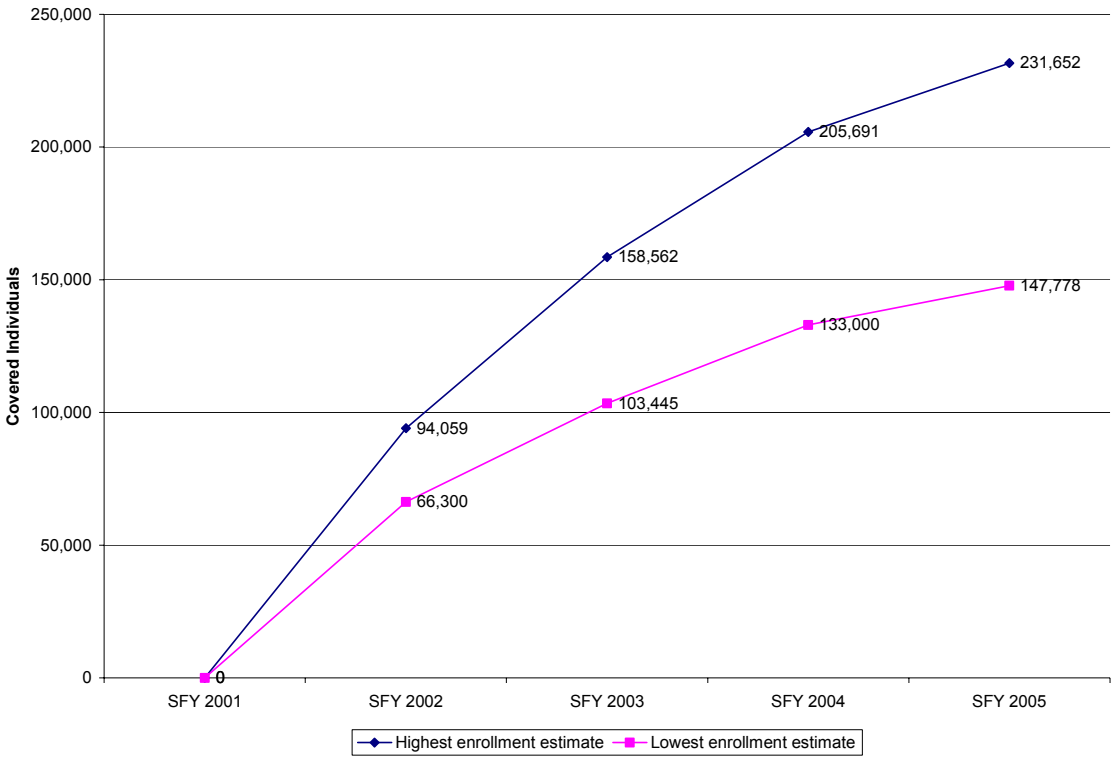


Figure 15 - Estimated Covered Individuals Below 200% Federal Poverty Level
State Fiscal Years 2001-2005

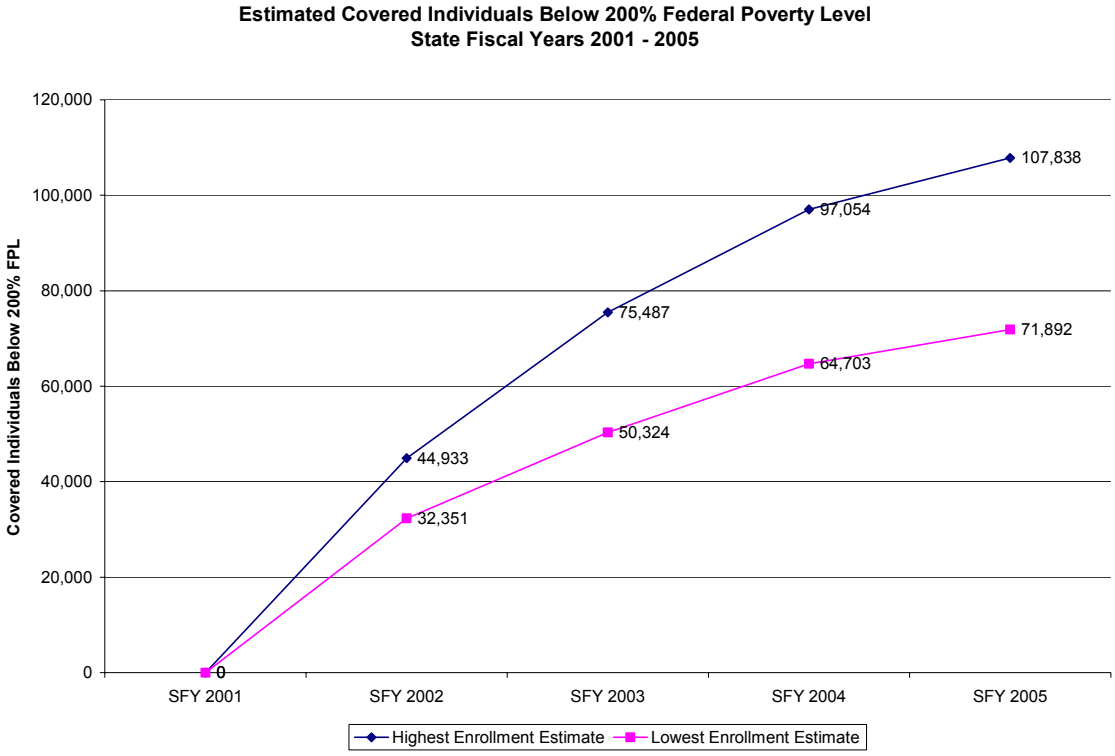


Figure 16 - Estimated Covered Individuals Between 200 and 300% Federal Poverty Level
State Fiscal Years 2001-2005

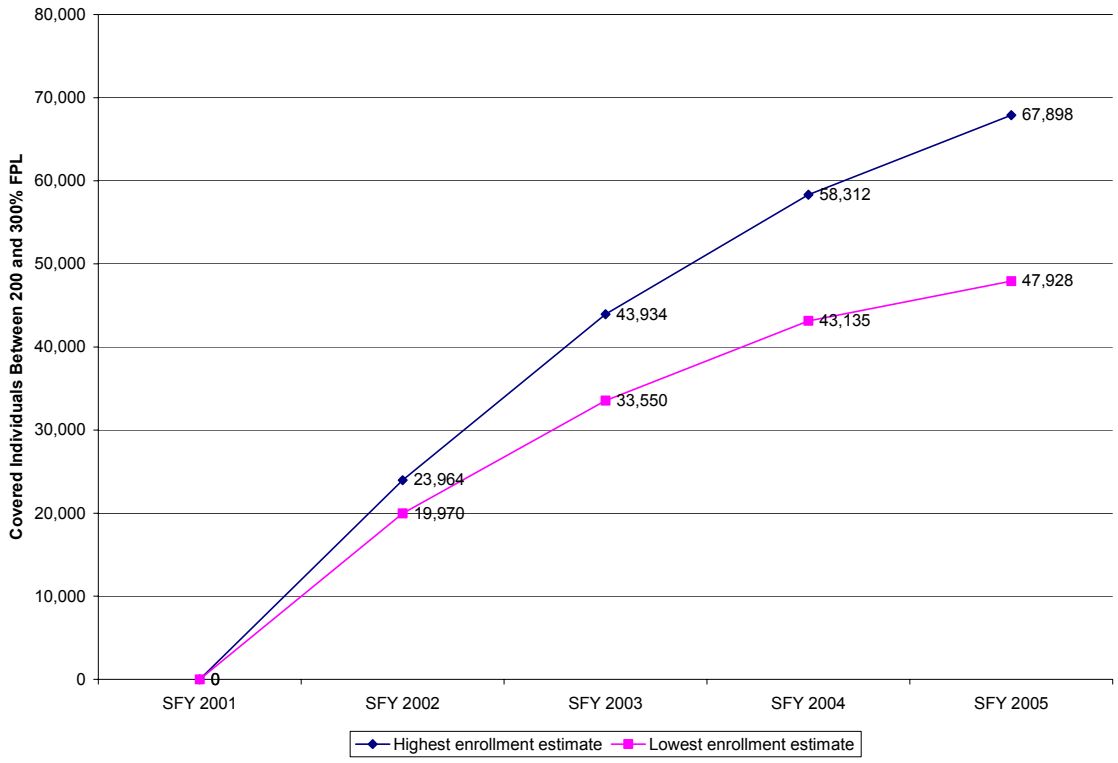


Figure 17 - Estimated Covered Individuals Over 300% Federal Poverty Level
State Fiscal Years 2001-2005

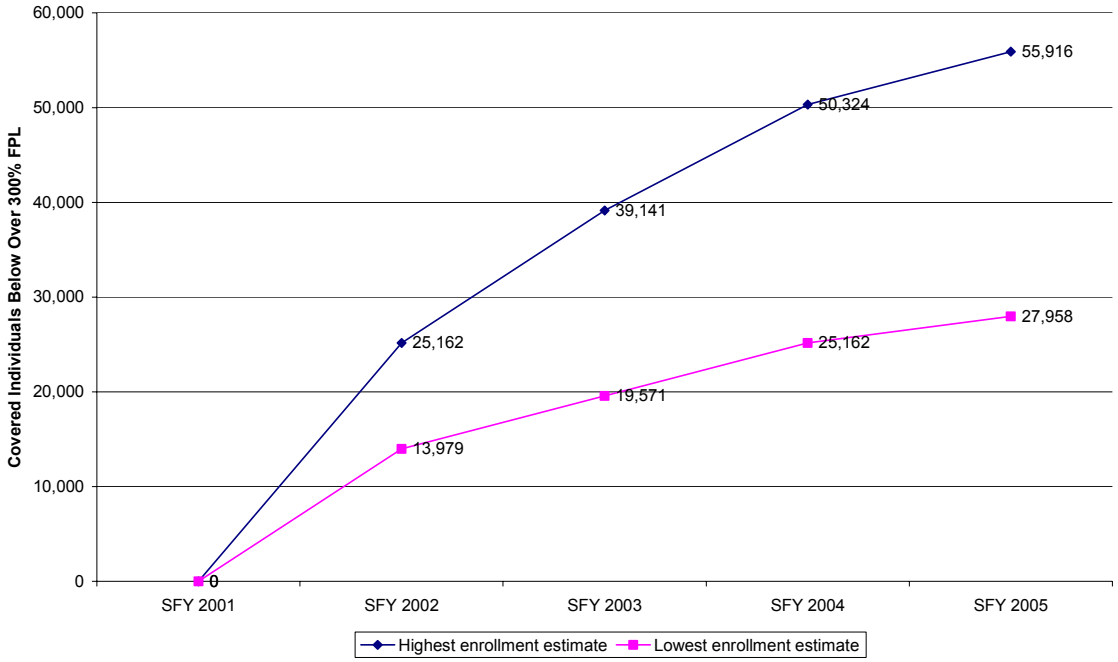
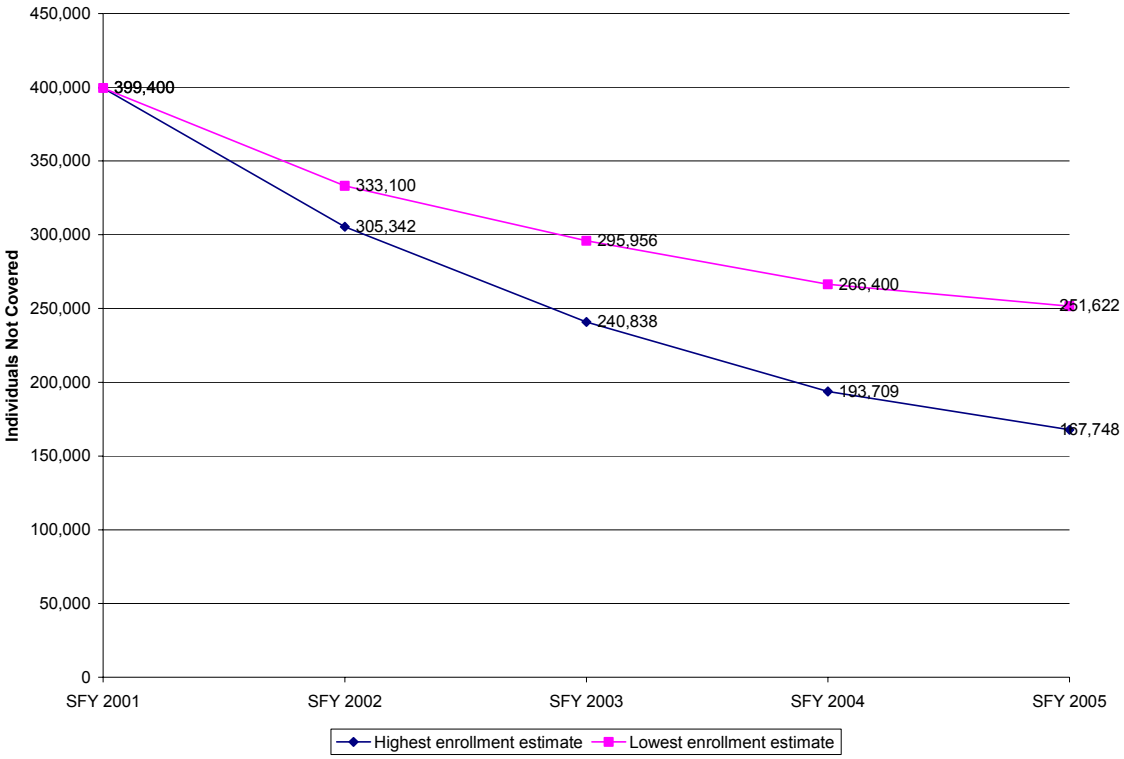


Figure 18 - Estimated Uninsured Federal Poverty Level
State Fiscal Years 2001-2005



3. MODELING RESULTS

a. Scenario #1 - Current Medicaid Reimbursement

The Model 1A charts in Appendix I present high and low FFP cost estimates assuming a relatively high enrollment scenario. The expected enrollment scenarios for each income strata were described in Section B. Expected average costs per additional enrollee are estimated at $3,780 per year for adults ages 19 to 64 and $2,736 per year for children age 18 and under. The expanded enrollment population bases these rates on 85 percent of Medicaid reimbursement due to the lower expected utilization of health services.

Total program costs are estimated to be $3.39 billion over the five-year implementation period (the first year's costs are $434 million). Assuming high FFP, the federal share of costs for this expansion is $1.28 billion. Total costs to individual enrollees are estimated at $397 million and costs borne by employers are estimated at $783 million. The remaining $933 million is borne by the Commonwealth. However, if funds are redistributed from the UCP, the State share is only $140 million, while the UCP would cover $792 million.

If we assume low FFP, employers would pay $841 million, and the federal share would be $826 million. Individual enrollees pay the same amount, $397 million. The Commonwealth's obligation is estimated at $1.33 billion. If funds were redistributed from the UCP, the State's share is reduced to $512 million, while the UCP would pay $813 million.

The Model 1A charts in Appendix I present high and low FFP cost estimates, assuming a relatively low enrollment scenario. Total program costs are estimated to be $2.21 billion over the five years (the first year costs are $306 million). Assuming high FFP, the federal share of costs for this expansion is $893 million. Total cost to individual enrollees is estimated at $206 million and costs borne by employers are estimated at $539 million. The remaining costs of $573 million are borne by the Commonwealth. However, if funds are redistributed from the UCP, the UCP would bear this entire cost and the State share would be zero.

If we assume low FFP, employers would pay $583 million and the federal share would be $578 million. Individual enrollees would pay the same amount, $206 million. The State's obligation is estimated at $845 million. If funds were redistributed from the UCP, the State's share is reduced to $100 million, while the UCP would pay $745 million. Summary results for Model 1A are displayed in Figure 19 below.

Figure 19 - Summary Chart of Model 1A
Medicaid Expansion Plan
Current Reimbursement

Cumulative 5-Year Total Cost of Model 1A

	High FFP	Low FFP
High Enrollment	$ 3,389,392,203	$ 3,389,392,203
Low Enrollment	$ 2,210,970,447	$ 2,210,970,447

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,276,230,253	$ 893,030,675	$ 825,778,610	$ 577,831,177
Individuals	$ 397,108,288	$ 205,531,395	$ 397,108,288	$ 205,531,395
Employers	$ 783,194,819	$ 539,012,075	$ 840,641,151	$ 582,741,769
State	$ 932,858,842	$ 573,396,301	$ 1,325,864,154	$ 844,866,105

b. Scenario #2 - Enhanced Medicaid Reimbursement

Model 1B assumes a 20 percent increase in Medicaid reimbursement rates. This is the only difference between the four versions of Model 1A and the four versions of Model 1B.

Model 1B Charts in Appendix I present high and low FFP cost estimates assuming a relatively high enrollment scenario and the higher reimbursement rates, respectively. Expected average costs per additional enrollee are estimated at $5,203 per year for adults ages 19 to 64 and $3,766 per year for children age 18 and under. These rates are based on utilization of services at 85 percent of the typical Medicaid recipient, but are also adjusted upward to reflect a 20 percent increase in reimbursement rates as desired by the Advisory Committee.

Total program costs are estimated to be $4.67 billion over the five-year implementation period (the first year's costs are $597 million). Assuming high FFP, the federal share of costs for this expansion is $1.76 billion. Total costs to individual enrollees are estimated at $540 million and costs borne by employers are estimated at $1.08 billion. The State is responsible for the remaining costs of the expansion population ($1.29 billion), as well as the 20 percent increased reimbursement extended to the current Medicaid population. These additional costs total $1.44 billion over five years. Thus, in aggregate, the State share of expenses would be $2.73 billion. If funds are redistributed from the UCP, the State share is $1.81 billion, while the UCP would cover $920 million.

If we assume low FFP, employers would pay $1.16 billion and the federal share would be $1.14 billion. Individual enrollees would pay the same amount, $540 million. The State's obligation is estimated at $1.83 billion for coverage of the expansion population and an additional $1.44 billion for enhanced reimbursement for current Medicaid enrollees, for an aggregate cost of $3.27 billion over five years. However, if funds were redistributed

from the UCP, the State's share would be reduced to $2.35 billion, while the UCP would pay $920 million.

Model 1B Charts in Appendix I present high and low FFP cost estimates, assuming a relatively low enrollment scenario. Total program costs are estimated to be $3.04 billion over the five years (the first year's costs are $421 million). Assuming high FFP, the federal share of costs for this expansion is $1.23 billion. The total cost to individual enrollees was estimated at $278 million and costs borne by employers were estimated at $746 million. The remaining costs of $2.23 billion are borne by the Commonwealth. However, if funds are redistributed from the UCP, the UCP would pay $920 million and the State share would be $1.31 billion.

If we assume low FFP, employers would pay $805 million and the federal share would be $795 million. Individual enrollees would pay the same amount, $278 million. The State's obligation is estimated at $1.16 billion for the expansion population and $1.44 billion for enhanced reimbursement for the current Medicaid population. However, if funds are reallocated from the UCP, the State's share is reduced to $1.69 billion, while the UCP would pay $920 million over the five years following implementation. Summary results for Model 1B are displayed in Figure 20 below.

Figure 20 - Summary Chart of Model 1B
Medicaid Expansion Plan
Enhanced Reimbursement

Cumulative 5-Year Total Cost of Model 1B

	High FFP	Low FFP
High Enrollment	$ 4,665,398,679	$ 4,665,398,679
Low Enrollment	$ 3,043,335,792	$ 3,043,335,792

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,756,693,408	$ 1,229,230,459	$ 1,136,659,969	$ 795,367,620
Individuals	$ 540,314,110	$ 278,236,799	$ 540,314,110	$ 278,236,799
Employers	$ 1,082,928,598	$ 745,559,059	$ 1,161,473,165	$ 805,311,181
State	$ 1,285,462,564	$ 790,309,475	$ 1,826,951,435	$ 1,164,420,191

4. IMPACTS

a. Legal and Political Impact

A Medicaid expansion requires additional federal waivers of new Medicaid program requirements. In this case the federal government would need to waive the income limits for eligibility up to 300 percent of poverty. This has been negotiated in other states. However, Massachusetts may also have difficulty with the upper payment limit (UPL) unless that restriction is lifted. Of the three proposed models, LECG believes this one will be the easiest for which to obtain federal approval.

The biggest difficulty with this model is its cost in light of current State budgetary shortfalls. The Commonwealth must determine the priority of this initiative for limited State resources.

b. Economic and Employment Impacts

The new funds from the federal government, employers' contributions, and employees' premiums, as well as the redistributed State funds, will have important effects on Massachusetts' economy. To estimate the additional increase in output, household earnings, and new jobs,[57] LECG used the Regional Input-Output Modeling System (RIMS II) multipliers for this analysis.[58] By summing the increased corporate income tax, personal income, and the effective sales tax revenue that the State receives, the additional tax revenue generated in the State was estimated. The difference between the total additional tax revenues and the State dollars used to provide additional access to health care coverage is the total adjusted cost of each option to the State.

In Model 1, there are a range of possible economic scenarios depending on enrollment and the federal participation level. Figure 21 shows the impacts at the two extremes, low enrollment and low FFP and high enrollment and high FFP. In the first year the total cost of the program, depending on enrollment, ranges from $305 million to $433 million; a total net increase in economic activity in the State is estimated to range from $144 million to $2.28 billion. Similarly, the impact on employment can vary, from 1,187 to 2,468 new jobs. The range is driven by the amount of new money combined with the types of jobs that are displaced when State funds are used rather than when federal money is injected into the economy.

[57] LECG has used the following to calculate the net change (increase or decrease) to output, household earnings, jobs and tax receipts. For corporation taxes, we have used a national average of 7.226 percent to calculate the profit margin for industries in Massachusetts. We have used the midpoint of State corporate income tax to estimate tax revenues. We estimate 81.5 percent of employees' take-home pay goes to taxable consumption goods and applied the effective sales tax rate base of 3.72 percent to this expenditure. Sources of the percentages used are based on calculations from: US Department of Commerce, US Census Bureau, *Statistical Abstract of the United States, 1999*; Taxation & Revenue Department; and Economic Development Department. LECG also assumed that 10 percent of increased funding for or by the Commonwealth will be used to access services outside the State.

[58] US Department of Commerce, Bureau of Economic Analysis, *Regional Multipliers Handbook, RIMS Multiplier,* 1997 regional data.

Figure 21 - Medicaid Expansion Economic Impact Analysis

Model 1

Year 1		Total Cost of Coverage	Total State Contribution	Federal Contribution	Total Individual/ Employer Contribution
Enrollment	FFP				
Low	Low	$305,594,076	$88,984,138	$78,021,220	$138,588,718
High	High	$433,538,583	$124,779,993	$158,780,054	$149,978,536
Cumulative	Cumulative				
Low	Low	$2,210,970,447	$844,866,105	$577,831,177	$788,273,165
High	High	$3,389,392,203	$932,858,842	$1,276,230,253	$1,180,303,107

		Net Increase in Output	Net Increase in Household Earnings	Net Inc./(Dec.) in Jobs	Increase in Massachusetts Tax Receipts	Adj. Cost to Massachusetts
Enrollment	FFP					
Low	Low	$144,316,126	$53,971,036	$1,187	$4,646,631	$84,337,507
High	High	$285,370,619	$105,325,260	$2,468	$9,093,612	$115,686,381
Cumulative	Cumulative					
Low	Low	$1,096,292,860	$414,599,912	$8,611	$35,610,306	$809,255,798
High	High	$2,283,367,850	$840,961,202	$19,906	$72,640,509	$860,218,334

The cumulative impact over five years is similar. The employment impact ranges from a gain of 8,611 to 19,906 full time jobs. The cost to the State decreases significantly as tax receipts grow over the implementation horizon.

5. IMPLEMENTATION ISSUES

Implementation of a Medicaid expansion would require approval by CMS. This model suggests elimination of several eligibility requirements, which would require revision of the State's federal 1115 waiver. It would also require approval by the Massachusetts Legislature. DMA's tasks would include:

- Development of a streamlined application and eligibility determination process
- Creation of needed policies and procedures
- Design of a targeted outreach program
- Establishment of premium collection and processing procedures

The 2002 legislative session eliminated the MassHealth Basic program, which will end coverage to approximately 50,000 individuals on April 1, 2003. However, State policymakers are currently trying to find the funds needed to restore this program. In light of current budgetary shortfalls, it seems unlikely that a Medicaid expansion could be implemented at this time.

D. MANDATED BASIC BENEFIT PACKAGE

1. A BRIEF DESCRIPTION

Under the mandated basic benefit package model, all Massachusetts' residents are required to have health insurance coverage.[59] Like Model #1 this reform effort is an expansion of Medicaid, however participation is mandatory and consumers are required to pay for all or some of their health insurance costs above the Medicaid eligibility thresholds. Like Model #1 there are two scenarios under this reform model, in this case distinguished by consumer (income) eligibility thresholds.

Health insurance could be provided by an individual's employer or by a public agency [such as Division of Medical Assistance (DMA)], or purchased by the individual. Although enforcement methods were discussed with members of the Advisory Committee, no consensus was reached. We suggest that one method to consider would be verification of coverage at the time of State tax return filing. If the tax filer did not have coverage, payment could be withheld or made at that time. Alternatively, premiums could be collected through an employer, the same way that Medicare funds are collected.

The benefit package for this model is that provided by Massachusetts' MSP. The package is slimmer than the one offered through Medicaid and more closely resembles a commercial health plan. Hence, we priced this package according to standard commercial managed care packages available in the Commonwealth. Any insurer who offers a health plan in the State would be compelled to offer the MSP on a guaranteed issue basis. Under this assumption, more consideration must be given to pricing scenarios for the MSP. Insurers would likely have the incentive to price the MSP out of the market so that, in effect, the plan would not really be an option.

The MSP covers the following:

– Inpatient services
- Medical and surgical admissions
- Mental health, alcoholism, and drug addiction admissions
- Skilled nursing care admissions (up to 60 days)

– Outpatient services
- Accident and emergency care
- Ambulance services
- Cardiac rehabilitation
- Chiropractic medical care
- Diagnostic laboratory care, x-rays, and other machined tests
- Durable medical equipment
- Early intervention services

[59] This model assumes that senior citizens are covered under Medicare Parts A & B, or a combination of Medicare and Medicaid under the expansion populations. The model does not require Senior citizens above 200% of FPL to purchase a Medicare supplement to mirror the basic benefit package. Policy makers may wish to extend the model in this way.

- Home health care
- Hospice services
- Maternity care, including prenatal and postnatal visits
- Medical care visits
- Physical therapists' services
- Prescription drugs
- Psychiatric services for mental health conditions
- Alcoholism and drug addiction
- Routine mammograms and pap smear tests
- Routine pediatric care, including immunizations
- Surgery and related anesthesia

Either DMA or the GIC would provide State oversight of this program. It would be administered by a private contractor (selected by a competitive bidding process) and would utilize the contractor's network. Contract language would be necessary to ensure that the contractor has a provider network sufficient to provide health care to all covered Massachusetts' residents.

This model would also include risk mechanisms, so that high cost individuals would not unduly raise premiums for the rest of the covered population. These risk mechanisms would include reinsurance, risk pooling, and regulatory oversight to ensure a fair distribution of high cost individuals across payers. Unlike an optional program, a mandate compels both the healthy and sick to purchase coverage, thereby preventing costs from escalating due to an exodus of healthy individuals if the population risks are pooled thoughtfully.

Like the first model, this model has two scenarios at the request of Advisory Committee members. The first scenario utilizes current Medicaid eligibility requirements and includes all other individuals under 200 percent FPL. All people over 200 percent FPL who are uninsured must purchase the basic benefit plan at their own expense.

The second scenario expands Medicaid eligibility and the Medicaid benefit package up to 300% FPL exactly like Model #1. In other words, individuals between 200 and 300 percent FPL will become Medicaid eligible and be liable for the monthly $50-$100-$150 premiums. All remaining uninsured are mandated to purchase the basic benefit plan. As in Model 1, employers share in the expense of purchasing the MSP at a rate that considers current health insurance offer rates. The federal government contributes to the expenses of Model 2 for enrollees below 300 percent FPL.

In addition, we model high and low expected enrollment scenarios. Although purchase of a basic benefit package is mandated, invariably, some individuals will avoid purchasing coverage. Thus, the low-expected enrollment scenario assumes that only 85 percent of currently uninsured individuals will purchase coverage five years after

implementation. The high-expected enrollment scenario assumes that coverage will reach 100 percent of the currently uninsured five years after implementation.

2. WHO IS COVERED?

Figure 22 illustrates the total number of enrollees by State fiscal year. Figures 23, 24, 25 & 26 show how many people are covered under the best and worst-case participation scenarios. Figure 27 shows how many people will still be uninsured after implementation of each modeling scenario.

Figure 22 – Estimated Participation Rate for Mandated Basic Benefit Package Model

	Year	Cumulative Percent Enrollment	New Enrollees	Cumulative Enrollees
Highest Estimated Enrollment	SFY 2002	30%	119,820	
	SFY 2003	55%	99,850	219,670
	SFY 2004	73%	71,892	291,562
	SFY 2005	100%	107,838	399,400
Lowest Estimated Enrollment	SFY 2002	30%	119,820	
	SFY 2003	55%	99,850	219,670
	SFY 2004	73%	71,892	291,562
	SFY 2005	85%	47,928	339,490

Figure 23 – Mandated Basic Benefit Package Model
Highest and Lowest Enrollment Estimates
State Fiscal Years 2001 – 2005

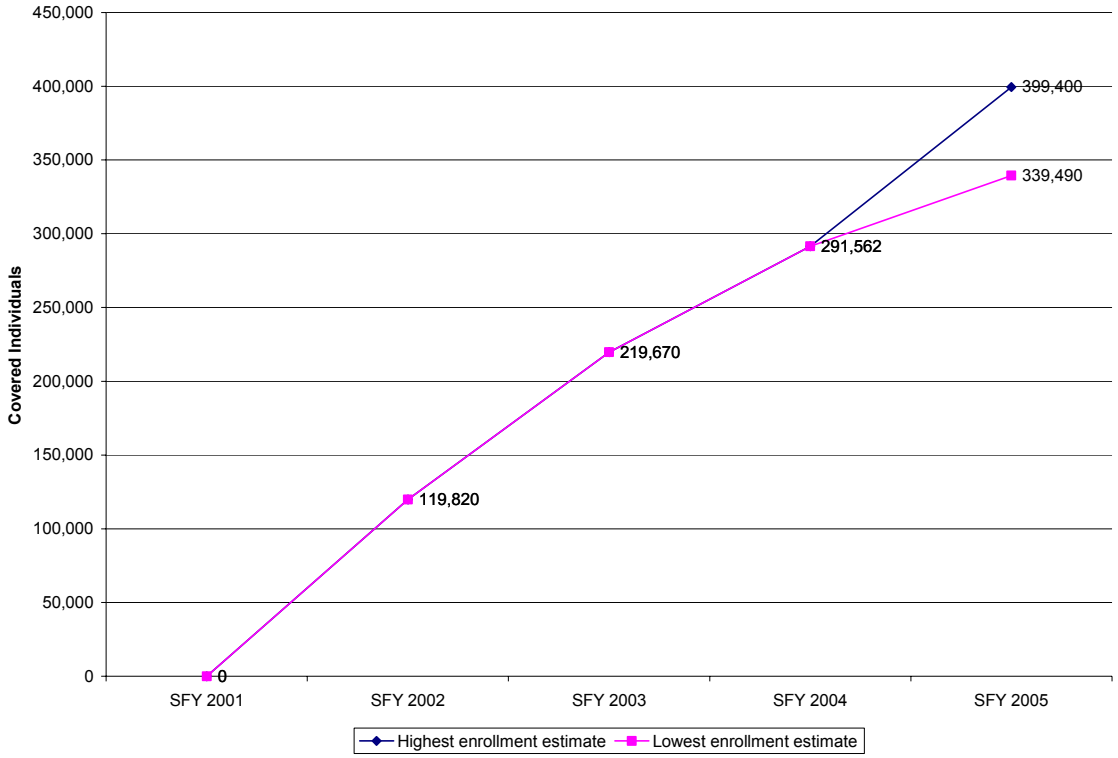


Figure 24 – Mandated Basic Benefit Package Model
Estimated Coverage Individuals Below 200% Federal Poverty Level
State Fiscal Years 2001 – 2005

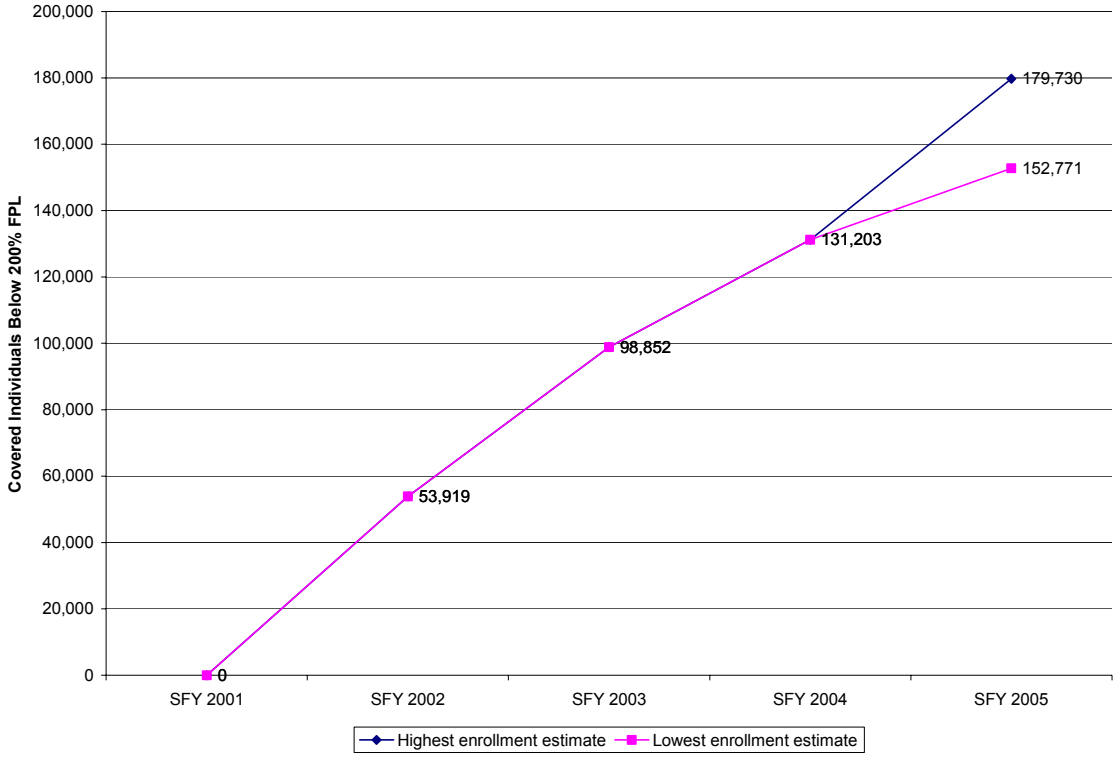


Figure 25 – Mandated Basic Benefit Package Model
Estimated Coverage Individuals Between 200% and 300% of the Federal Poverty Level
State Fiscal Years 2001 – 2005

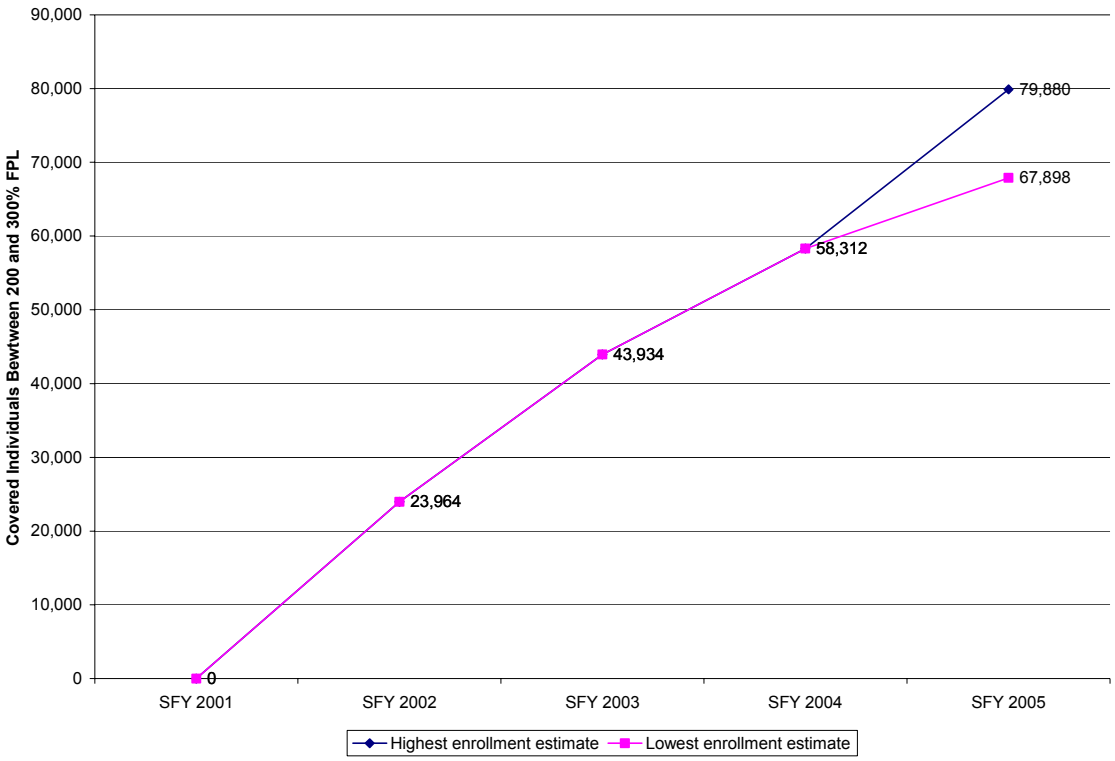


Figure 26 – Mandated Basic Benefit Package Model

Estimated Coverage Individuals Above 300% Federal Poverty Level
State Fiscal Years 2001 – 2005

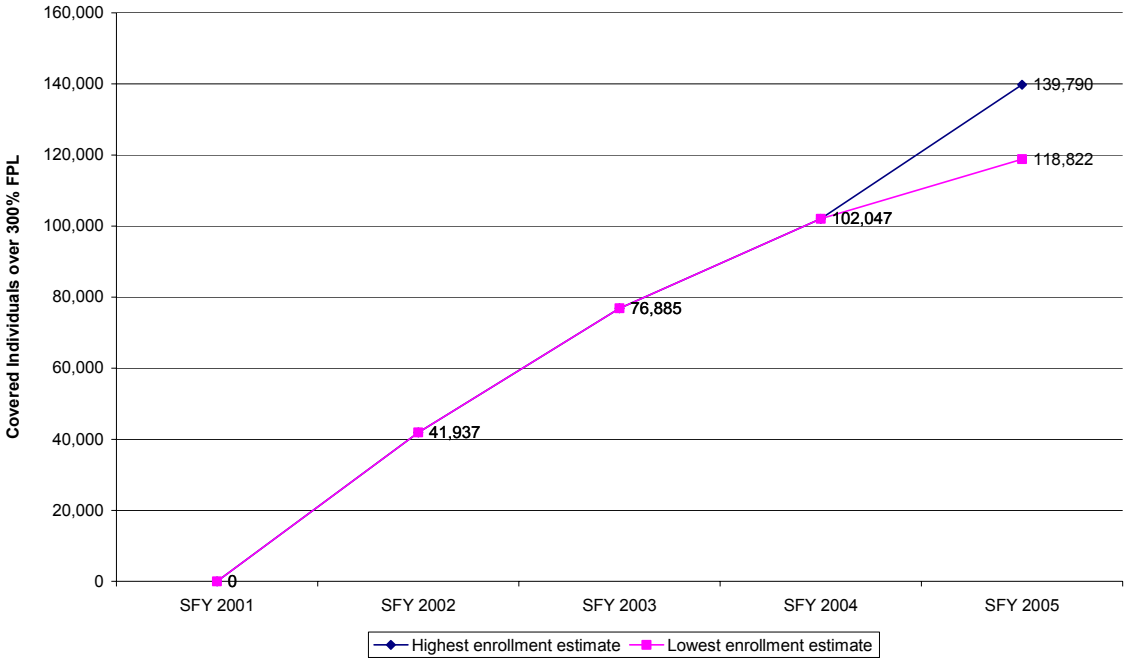
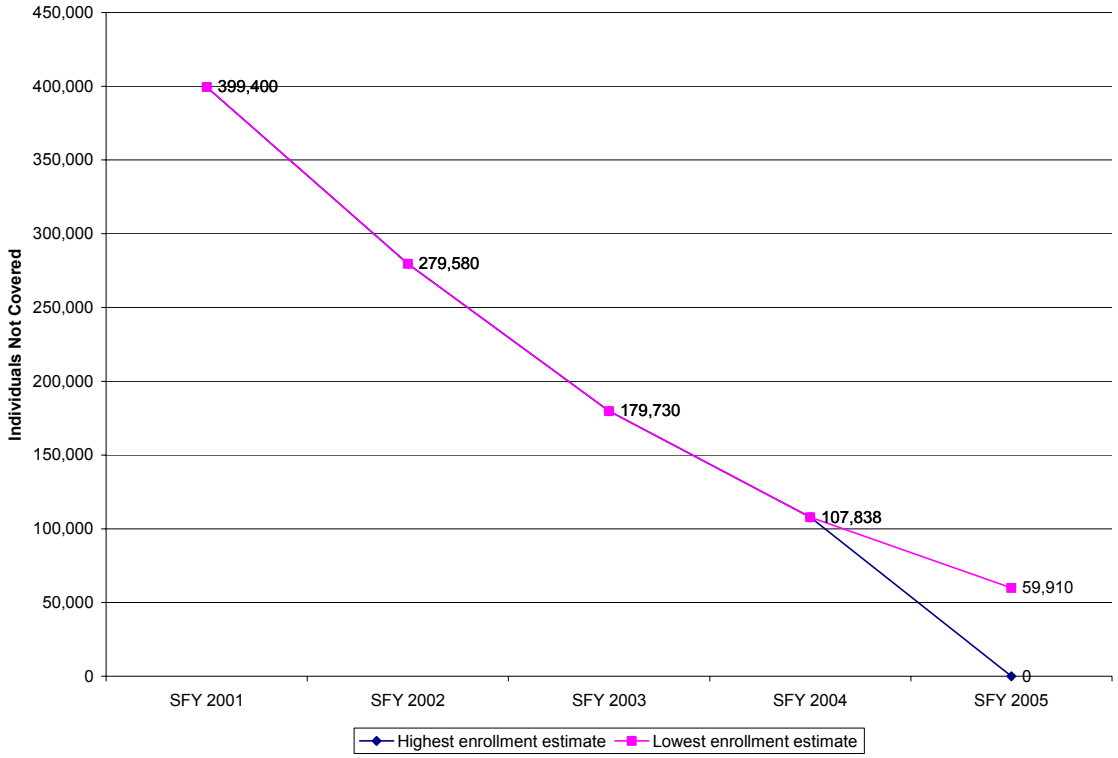


Figure 27 – Mandated Basic Benefit Package Model
Estimated Individuals Not Covered State Fiscal Years 2001-2005



3. MODELING RESULTS

a. Scenario #1- Current Medicaid Eligibility

Model 2A charts in Appendix J present high and low FFP cost estimates assuming a high enrollment scenario (i.e., 100 percent of uninsured will purchase coverage within 5 years). The expected enrollment scenarios for each income strata were described above. Expected average costs per additional enrollee were estimated at $3,321.84 per year for single coverage, $6,194.04 for dual coverage, and $9,600 per year for family coverage. These rates are based on the most popular commercial plans available in the State. Average Medicaid rates for non-elderly and non-disabled children and adults were used for the incremental population that would obtain coverage from Medicaid.

Total program costs were estimated to be $4.20 billion over the five-year implementation period (the first year's costs are $558 million). Assuming high FFP, the federal share of costs for this expansion is $1.6 billion. Total costs to individual enrollees are estimated at $525 million and costs borne by employers are estimated at $800 million. The remaining costs of $1.26 billion are borne by the Commonwealth. However, if funds are redistributed from the UCP, the State share is only $397 million, while the UCP would pay $866 million.

If we assume low FFP, employers would pay $1.39 billion and the federal share would be $1.09 billion. Individual enrollees pay the same amount, $525 million. The State government's obligation is estimated at $1.2 billion. If funds were redistributed from the UCP, the State's share is reduced to $339 million, while the UCP would pay $859 million.

Model 2A charts in Appendix J present high and low FFP cost estimates, assuming a relatively low enrollment scenario (i.e., 85 percent of the uninsured will purchase coverage within five years). Total program costs are estimated to be $4.0 billion over five years (the first year's costs are $558 million). Assuming high FFP, the federal share of costs for this expansion would be $1.54 million. Total cost to individual enrollees is estimated at $493 million and costs borne by employers are estimated at $757 million. The remaining costs of $1.2 billion are borne by the Commonwealth. However, if funds are redistributed from the UCP, the UCP would pay $867 million and the State share would be $338 million.

If we assume low FFP, employers would pay $1.3 million and the federal share would be $1.04 million. Individual enrollees would pay the same amount as above, $493 million. The State's obligation is estimated at $1.14 billion. If funds are redistributed from the UCP, the State's share is reduced to only $283 million, while the UCP would pay $859 million. Figure 28 illustrates the basic costs and share of expenses of Model 2A.

Figure 28 - Summary Chart of Model 2A
Mandated Basic Benefit Plan
Assuming Current Medicaid Eligibility

Cumulative 5-Year Total Cost of Model 2A

	High FFP	Low FFP
High Enrollment	$ 4,208,366,428	$ 4,208,366,428
Low Enrollment	$ 3,997,578,358	$ 3,997,578,358

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,618,573,546	$ 1,542,441,006	$ 1,094,919,160	$ 1,045,657,969
Individuals	$ 524,996,709	$ 493,361,860	$ 524,996,709	$ 493,361,860
Employers	$ 800,838,696	$ 757,264,988	$ 1,390,105,336	$ 1,315,706,666
State	$ 1,263,957,477	$ 1,204,510,504	$ 1,198,345,223	$ 1,142,851,863

b. Scenario #2 - Expanded Medicaid Eligibility

This section describes the results assuming expanded Medicaid eligibility and the purchase of the MSP by all other uninsured. Model 2B Charts in Appendix J present high and low FFP cost estimates assuming a high enrollment scenario (i.e., 100 percent of uninsured will purchase coverage within five years).

Total program costs are projected to be $4.84 billion over the five-year implementation period (the first year's costs are $672 million). Assuming high FFP, the federal share is $1.9 billion. Total costs to individual enrollees are estimated at $525 million and costs borne by employers are estimated at $892 million. The remaining costs of $1.5 billion are borne by the Commonwealth. However, if funds are redistributed from the UCP, the State obligation is only $583 million, while the UCP would pay $909 million.

If we assume low FFP, employers would pay $1.57 billion and the federal share would be $1.32 billion. Individual enrollees pay the same amount, $525 million. The State government's obligation is estimated at $1.42 billion. If funds are redistributed from the UCP, the State's share is reduced to $524 million, while the UCP would pay $902 million.

Model 2B Charts in Appendix J present high and low FFP cost estimates, assuming a relatively low enrollment scenario (i.e., 85 percent of the uninsured will purchase coverage within five years). Total program costs are estimated to be $4.61 billion over the five years (the first year's costs are $672 million). Assuming high FFP, the federal share of costs is $1.85 million. Total cost to individual enrollees is estimated at $493 million and costs borne by employers are estimated at $845 million. The remaining costs of $1.42 billion are borne by the Commonwealth. However, if funds are redistributed from the UCP, the UCP would pay $908 million and the State share would be $516 million.

If we assume low FFP, employers would pay $1.49 million and the federal share would be $1.26 million. Individual enrollees would pay the same amount as above, $493

million. The State's obligation is estimated at $1.36 billion. If funds are redistributed from the UCP, the State's share is reduced to $426 million, while the UCP would pay $902 million.

Figure 29 illustrates the basic costs and share of expenses of Model 2B.

Figure 29 - Summary Chart of Model 2B
Mandated Basic Benefit Plan
Assuming Enhanced Medicaid Eligibility

Cumulative 5-Year Total Cost of Model 2B

	High FFP	Low FFP
High Enrollment	$ 4,845,457,113	$ 4,845,457,113
Low Enrollment	$ 4,615,300,365	$ 4,615,300,365

Shares by Federal Participation/Enrollment

Share of Costs Borne by:	High FFP/High Enrollment	High FFP/Low Enrollment	Low FFP/High Enrollment	Low FFP/Low Enrollment
Federal	$ 1,937,118,889	$ 1,851,302,010	$ 1,322,200,818	$ 1,266,673,422
Individuals	$ 524,996,709	$ 493,361,860	$ 524,996,709	$ 493,361,860
Employers	$ 892,102,381	$ 845,110,539	$ 1,572,632,705	$ 1,491,397,767
State	$ 1,491,239,134	$ 1,425,525,957	$ 1,425,626,881	$ 1,363,867,316

4. IMPACT

a. Legal and Political Impact

A Medicaid basic benefit package that is "slimmer" than the current package might be viewed unfavorably by the federal government. Similarly, advocacy groups may also feel that services should not be cut. Having said that, the current economic climate is such that all economies will have significant support among many Massachusetts' citizens.

Traditionally federal regulators and regulation have not looked favorably upon the introduction of a limited Medicaid package. However, the opportunity to expand coverage to more of the general population may garner federal and State support.

Like Model 1, the biggest difficulty with this model is the State's current budget shortfall. State legislators must determine the priority of this initiative in light of the State's limited resources.

b. Economic and Employment Impacts

The new funds from the federal government, employers' contributions, and employees' premiums, as well as the redistributed State funds, will have important effects on Massachusetts' economy. To estimate the additional increase in output, household earnings, and new jobs,[60] LECG used the RIMS II multipliers for this analysis.[61] By

[60] LECG has used the following to calculate the net change (increase or decrease) to output, household earnings, jobs and tax receipts. For corporation taxes, we have used a national average of 7.226 percent to calculate the profit margin for industries in Massachusetts. We have used the midpoint of State corporate income tax to estimate tax revenues. We estimate 81.5 percent of employees' take-home pay goes to taxable consumption goods and applied the effective tax rate of 3.72 percent to this expenditure. Sources of the percentages used are based on calculations

summing the increased corporate income tax, personal income, and the effective sales tax revenue that the State receives, the additional tax revenue generated in the State was estimated. The difference between the total additional tax revenues and the State dollars used to provide additional access to health care coverage is the total adjusted cost of each option to the State.

In Model 2 federal participation is driven by the adoption of a basic benefit package for all Medicaid participants and the mandate for others to purchase the package. LECG has run several impact analyses for Model 2. See Figure 30.

Figure 30 - Mandated Basic Benefit Package Model
Economic Impact Analysis

Figure 12

Model 2

Year 1		Total Cost of Coverage	Total State Contribution	Federal Contribution	Total Individual/ Employer Contribution
Enrollment	FFP				
High	Low	$301,625,051	$74,670,752	$63,428,635	$163,525,664
High	High	$301,625,051	$81,802,617	$98,028,141	$121,794,292
Cumulative	Cumulative				
High	Low	$2,774,912,386	$686,961,493	$583,535,431	$1,504,415,463
High	High	$2,774,912,386	$752,573,747	$901,846,526	$1,120,492,114

		Net Increase in Output	Net Increase in Household Earnings	Net Inc./(Dec.) in Jobs	Increase in Massachusetts Tax Receipts	Adj. Cost to Massachusetts
Enrollment	FFP					
High	Low	$117,668,601	$44,063,249	$962	$3,792,560	$70,878,192
High	High	$176,887,608	$65,407,775	$1,519	$5,644,938	$76,157,679
Cumulative	Cumulative					
High	Low	$1,082,536,278	$405,376,326	$8,854	$34,891,075	$652,070,418
High	High	$1,627,343,664	$601,743,270	$13,977	$51,932,715	$700,641,032

from: US Department of Commerce, US Census Bureau, *Statistical Abstract of the United States, 1999*; Taxation & Revenue Department; and Economic Development Department. LECG also assumed that 10 percent of increased funding for or by the Commonwealth will be used to access services outside the State.

[61] US Department of Commerce, Bureau of Economic Analysis, *Regional Multipliers Handbook, RIMS Multiplier,* 1997 regional data.

Like Model #1, the Medicaid Expansion, there is a range of possible economic scenarios to consider. There are high and low FFP options, and two different pricing models. For the purposes of this analysis, LECG chose to model the impact of the least costly set of alternatives, the current Medicaid population with a buy-in for families with an income level between 200 and 300 percent FPL.

The one-year results show a relatively limited range of State financial liability scenarios ranging from $75 million to $82 million. However, the federal participation rate drives both the employer/employee liability and the overall level of economic stimulus created. With high federal participation, the State's net increase in output rises $177 million with an estimate 1,519 new jobs created.

The cumulative impact over five years is similar in scope. The employment impact ranges from a gain of 8,854 to 13,977 full time jobs. The cost to the State decreases significantly as tax receipts grow over the implementation horizon.

5. IMPLEMENTATION ISSUES

There are some major infrastructure issues involved with the implementation of this model. A mechanism would need to be established for verifying health insurance coverage, accepting premiums, and enforcing compliance. The GIC or DMA could potentially be involved in the first two activities, but enforcement seems to beyond their charges. Perhaps the Department of Revenue could participate in enforcement activities.

This model also requires that all Massachusetts' citizens agree that purchasing health insurance coverage is a good use of their resources. Our experience tells us that five to ten percent of the State's population will not agree with this assumption. For this model's insurance premiums to be affordable, the majority of uninsured with income over 300 percent of FPL must purchase coverage. If this does not occur, purchasers will be higher cost individuals and the price of insurance will be skewed upward, ultimately pricing the insurance product out of most citizens' financial capabilities.

As indicated above, compliance with the mandate is critical to the success of this reform. The affordability of the basic benefit insurance product requires full participation such that the sick and old are subsidized by the young and healthy. Co-existence of private and public insurers will require almost certainly require pooling of risk between private and public sectors to reduce the incentives to cherry pick "good risks" from a residual pool of "bad risks."

Mandatory participation will need to be enforced. The Advisory Committee did not reach a consensus on the appropriate enforcement mechanisms. Alternatives range from employer withholding legislation to confirmation of insurance at time of tax filing to civil penalties, like auto insurance, if care is accessed without current proof of insurance. This issue prompted a fifteen percent variance in enrollment expectations in the analysis as indicated above.

Several of the stakeholders that were interviewed during this project thought that the State's health care situation must worsen considerably before there will be a political will to change. This may be a model that could be implemented on a pilot project basis to determine its potential success as a statewide initiative.

E. SINGLE PAYER SYSTEM

Because the single payer model is the most complex change from the current system of health care finance and delivery in Massachusetts, LECG will describe this system is greater detail than the previous two models. The first section describes the system, including a few background comments and discussion of the important characteristics of a single payer system. Following the format of the first two models, the second section describes who is covered. Section three presents the economic modeling results. The modeling is more detailed. Finally, we present the impact analysis and major implementation issues.

The single payer model is the product of public input, LECG analysis, and Advisory Committee member input. This version of a single payer system extends the rights to care commonly associated with national health systems one step further and provides for a single authority to purchase, monitor, and regulate all service delivery.

1. A BRIEF DESCRIPTION OF THE SINGLE PAYER MODEL

a. Background Information

Under a single payer system, all residents of the Commonwealth would have health insurance coverage. The financing of care is based on a trust fund created to receive and distribute all health care dollars, including Medicare, Medicaid, commercial, and other funds. Oversight would be provided by a newly established SPA that would pay for all services and manage the care provided.

Since World War II, most industrialized countries have adopted universal or near universal health care for all citizens as either a right or via mandatory insurance. Although the systems vary significantly they all assure that organized care is made available to all citizens, like the single payer model. There is no single model of financing or delivery that is clearly superior, and all systems are introducing incentives to encourage thoughtful and economical consumption of resources by consumers and allocation of resources by providers.

The Canadian health system is the most often used example of a single payer system. Closely related are the National Health Service in the United Kingdom and the health fund based system in Germany.

In Canada health care is a right for all Canadian citizens under the Country's constitution. This right does not cover all care and is subject to interpretation at the provincial level. In other words, there is some variation in coverage from province to province; provincial and federal government agencies often disagree, and the courts and the electorate must sometimes resolve coverage and payment disagreements. Employers and consumers pay

for most psychiatric care, pharmacy, and chiropractic services. Canadian citizens regularly show their approval of the system by voting down referendums to implement significant change.

The Canadian system's greatest strengths include equity of treatment and the public's general satisfaction with care. The overall cost of care is significantly less than in the United States and many other industrialized nations.

The Canadian system's greatest weaknesses depend on one's perspective. Waiting lists are frequently used to ration specialty care or prioritize. It is not unheard of for general practitioners to stop providing non-emergent care the last six to eights weeks of the budget year when utilization has been higher than predicted and funds are no longer available to compensate providers. This sort of inconvenience is not unlike the ongoing difficulties of many low-income, uninsured US citizens who are forced to access care via emergency rooms and relatively high-cost urgent care centers.

Actuarial science and common sense indicate that a universal health system such as the proposed single payer model will allow consumers to seek treatment earlier in the disease cycle of many maladies. The LECG model and actuarial science are able to model the costs of the increased utilization that this behavior implies. We are not able to model the long-term savings that early intervention implies, as there is very little reliable data on the subject. HMO benefit packages and care may become a proxy for this over time, if cost control mechanisms are not paramount in treatment decisions. An indication of the value of early intervention may be seen in other developed countries with a history of universal health care. However too many other intervening variables, such as life style including eating and exercise habits (and possibly genetics) have prevented LECG and others from isolating any direct causation of population health status differences.

b. Characteristics of the Massachusetts Single Payer System

- Health insurance provided to all residents of Massachusetts
- Consumers:
  - Pay for care according to their ability
  - Are assured of necessary care regardless of their ability to pay
  - Can see any willing provider[62]
- Benefit package covers
  - All medically necessary care
  - Covered services include:
    - Acute care services
    - Mental health services
    - Limited long-term care services
    - Preventive services
    - Pharmaceutical services, with voluntary generic drug substitution[63]

[62] This means any participating provider, all providers can participate but for quality of care issues.

    - Occupational health services
    - Vision
    - Dental
- Elective and experimental services are not covered
  - Pharmacy pricing is regulated; the Advisory Committee recommended a reference pricing system[64]
  - The pharmacy research subsidy is weighted based on the number of people in the Massachusetts marketplace relative to the rest of the world.[65]
  - The costs of medical education and research is not subsidized but apportioned to reflect demand across all industrialized countries[66]
  - A SPA that is quasi-governmental will administer the system.
  - The SPA will:
    - Regulate care
    - Enroll consumers
    - Determine appropriate care standards
    - Ensure quality of care
    - Collect revenues
    - Pay all providers
    - Assume all risk for the cost of providing care, guaranteed by the State or other source
  - The delivery system remains unchanged
    - Providers are organized into networks and are private practitioners or employees of the group, network, or facility with which they work
    - Facilities are separate legal entities and may be organized as for-profit or non-profit enterprises
  - Financing is based on:
    - Employer based taxes levied on all employers including the self-insured
    - Employee taxes
    - Other State taxes
    - Federal revenue streams, including Medicaid and Medicare, both of which would be pooled

[63] Some Advisory Committee members support mandatory generic drug substitution.

[64] Reference pricing generally means that the SPA would pay the price of the least expensive, therapeutic equivalent drug among the choices, usually within a single therapeutic class. Other variations of a strict reference price system allow physicians to make medically necessary exceptions to the reference price pharmaceutical with full payment by the payer; others may base the reference price on a market basket of countries' prices or another price list.

[65] Although the total cost of pharmaceutical research added into the retail price of legend medications is often debated, the government of Australia estimated that it represented 15 percent of the manufacturer's price in the early 1990s.

[66] The Advisory Committee and LECG did not attempt to explore this area in detail. Several Advisory Committee members stated that other states and nations benefiting from the education and research provided in Massachusetts should be charged prices for training and care reflecting the (marginal) value of the service provided. This would reduce the subsidy borne by Massachusetts citizens and include positive economic impact of this industry on the Massachusetts economy.

- The role of health insurance companies
  - Health insurers may offer alternative health insurance products to the general public, regulated as they are today
  - Health insurers may contract to organize and administer the provision of care much as they do for self-insured employers in today's marketplace
  - Health insurers may contract with the single State agency to provide administrative services, including but not limited to, claims adjudication, quality management, and provider audit functions
- Regulatory changes will include:
  - Consolidation of provider licensure under the quasi-government agency
  - Federal waiver procurement for Medicaid, Medicare, and ERISA
  - Charity care compensation

c. Descriptions the Most Important Characteristics

i. The SPA

The SPA will be a public or quasi-public entity with the mandate to organize systems of care. The agency could be an entity modeled after the GIC; DMA; or a newly developed non-governmental organization.

ii. The Delivery System

The single payer model maintains most aspects of the current delivery system. It may include individual providers and facilities or networks of providers and facilities. The SPA may pay providers directly or choose to contract with network administrators that contract to administer the system for certain geographic areas, population groups, or networks of providers.

The SPA's criteria for delivery system organization will be to balance costs and benefits to consumers. The SPA will contract with third party administrators, other network entities, and individual providers when the overall system cost or the quality of care outweighs the administrative expense of contracted functions.[67]

iii. Financing

Financing for the single payer system will be mandatory for individuals and employers, as well as contributions by local, State, and federal government sources. Taxes could include dedicated State taxes on earned and unearned income, cigarettes and alcohol set at rates that would maintain current State and local health care spending while maximizing available federal funds.

[67] Other organized health systems around the world have found that regional, sometimes local and sometimes target population specific organized networks are efficient. For example, the National Health System in the United Kingdom now contracts with and capitates primary care "stakeholder" groups for all care in some regions. In New Zealand certain services are contracted out, for example orthopedic services, and some populations, for example those desiring specific added benefits may "opt-out" of the standard system.

Taxes and other dedicated payments will be collected through payroll withholding by the State's taxing authority and then transferred to the SPA for distribution. Massachusetts residents who work in other states will have funds deducted from their payroll.

State and local funds will be provided to meet the costs of citizens below 300 percent FPL. We assume that federal funds will be available from the Medicare and Medicaid programs, once needed waivers are obtained.

iv. Benefit Package

Advisory Committee members that met with LECG staff discussed this issue at some length. The benefit package is to be comparable in coverage to the State government employees benefit package, without deductibles. Although at odds with the enabling legislation, the Advisory Committee approved the use of co-payments to incent rational consumption of services like Model #2.

v. Eligibility and Residency

The single payer system may create an incentive for non- Massachusetts residents to seek care inappropriately. Therefore, specific residency requirements are needed.

Coverage in Massachusetts

Residency is the basis for eligibility under the single payer model.[68] All residents are covered, regardless of income. Residents of contiguous states who work in Massachusetts will not be eligible for coverage under the Massachusetts single payer system.[69] New residents to the State will be responsible for the costs of care until residency is established.

Coverage outside Massachusetts (Out-of-Area)

Massachusetts's residents who leave the State for more than three continuous months will be responsible for purchasing their own private insurance policy or paying fee-for-service.[70] Residents who need emergency treatment while out of state will be covered under emergency care rules similar to market standards today. Residents would be expected to obtain necessary emergency services then return to Massachusetts for ongoing care.

2. WHO IS COVERED

The single payer system is a mandatory, universal coverage system of care. After the implementation period there should be no "leakage" of eligible, but still uninsured Massachusetts's citizens except for those that do not meet residency requirements.

[68] The Massachusetts residency requirement is to be domiciled in the state for 90 days and demonstrate an intent to stay.

[69] Out-of-state residents working in Massachusetts could be given the option to be covered under the single payer system if they pay taxes in Massachusetts, have the requisite payroll deductions made by their employer, and make up for any short-fall in other health care taxes collected from Massachusetts residents.

[70] Some Advisory Committee members felt that out-of-state resident coverage should be provided regardless of the length of time the resident is out of state. LECG notes that Canadian provinces have had severe financial difficulties with senior citizens out of country for extended vacations and have recently implemented rules similar to those described above as a cost containment strategy.

3. MODELING RESULTS

The single payer model requires a significant number of changes to the overall functioning of the health care finance and delivery system in Massachusetts. There are a series of costs and savings expected as a result of the changes.

The modeling results are presented in two sections.

- Section a discusses specific costs and savings associated with this single payer system in Massachusetts
- Section b presents the estimated costs of the single payer model.

a. Costs and Savings in a Single Payer System[71]

i. Administrative Costs

Costs of a single payer system, relative to today's system, are primarily associated with changes in operating and administrative costs. In the LECG model, we estimate those costs using the least costly administrative model, Medicaid. These costs are further adjusted to take into account efficiencies of scale given the size of the covered population.

Savings associated with the single payer model arise from many sources. LECG staff and Advisory Committee members identified over two-dozen broad areas where savings can be realized. We estimated the impacts in over 160 cost centers of providers and insurers/delivery system administrators, based on the summary categories of medical care, insurer expenses and other payer expenses. This exercise was conducted over several meetings and involved discussions among LECG consultants, private and public sector experts, and other stakeholders. We also reviewed the academic and professional literature and the results of previous analyses done in Massachusetts.[72]

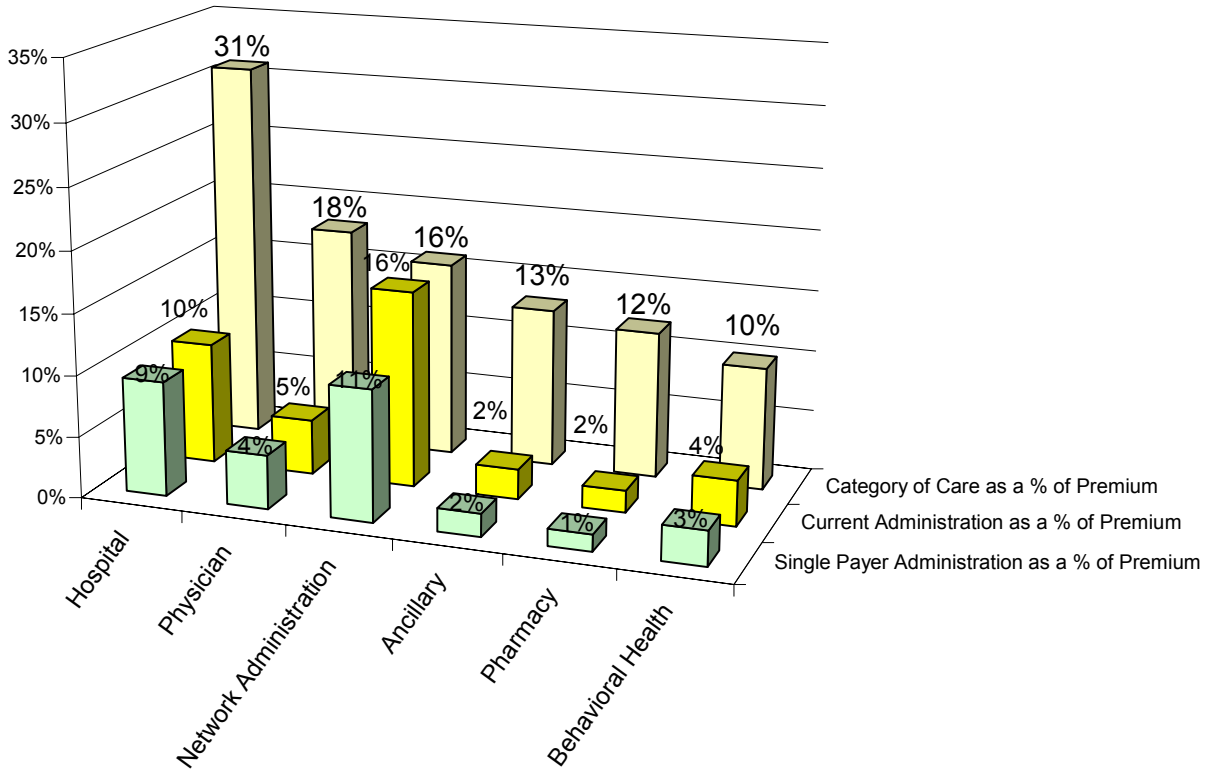
Figure 31 presents the summarized results of the insurer/delivery system administrative cost analysis under a single payer system. This figure illustrates the current share of an insurance premium dollar that each of these entities devotes to administrative expenses and the respective share that we estimate would exist under a single payer scenario.[73]

[71] LECG estimated expected savings and costs based on actual reported expenses and published data where available. Professional and actuarial judgment and proprietary data were used as indicated. In some cases, experience from other countries with single payer systems was used.

[72] Need citation for the AMA, AHA, Lewin, legislative and Sager reports and other LECG assignments.

[73] The premium dollar shares are shown for illustration only. Including public sector and private sector payers this is the largest single share of revenues and costs in Massachusetts as shown in the base case. The administrative shares and associated costs and savings are identified in the summary figures #_____ later in this section.

Figure 31 - Single Payer Administrative Cost Comparison



As a proxy for SPA services, LECG and the Advisory Committee agreed to use the current Medicaid and GIC cost structures. Therefore, for our modeling purposes we transferred those costs to the SPA. We estimate that the functions and costs currently embedded in State government agencies will continue and expand. The number of enrollees would increase by a factor of four or five. However, taking into account economies of scale and the potential administrative efficiencies of a single payer system, LECG estimates that the net impact on these operating costs will be a threefold increase in State administrative costs under the single payer model to $506 million.

The single payer model does not envision changes to the delivery system. Most providers are expected to practice largely as they do today. Delivery system administration can be contracted to existing HMOs or the administrative operations of current health care insurers.

LECG and the Advisory Committee identified approximately 70-affected network administration cost centers and estimated the impact of a single payer system. For example, we estimated that managed care and insurer contracting staff is reduced by 40 percent under a single payer scenario, since provider contracts will continue to exist, but be greatly reduced in number and renewal frequency.

The net impact of these changes for network administration is a 33 percent reduction in affected administrative costs. Network administrators usually spend an average of 16 percent of their premium income on administration only half of that is affected by the change to a single payer system,[74] we estimate this change would produce a savings of two percent in the total cost of health insurance. A complete summary of all relevant adjustments are in Appendices J, K & L.

ii. Insurance Risk in the Single Payer System

Risk for the Costs of Care

The ultimate risk for the cost of care is borne by the SPA. The Commonwealth will need to determine whether this means that the SPA must re-insure its risk in the commercial markets, thereby increasing its cost by three to eight percent. Alternatively, the Commonwealth can assume risk.[75] LECG assumes that the Commonwealth will take on the risk for the cost of care of its citizens.

LECG assumes that the SPA will choose to capitate or partially capitate some providers, provider groups, or network administrators to incent efficient care. This strategy is common in most national health systems or is now being incorporated into these systems. Other providers could be reimbursed on some type of fixed fee-for-service basis where fees are set and agreed upon in advance.

Risk Pooling

The single payer model pools all risk into a single pool, allowing the payer to subsidize high cost individuals. This provides overall system solvency risk assurances as indicated above. This assures that the young will subsidize the old and the healthy will subsidize the sick.

Risk pooling will result in a significant reduction for the need for reinsurance by providers. In the LECG model, reinsurance expenditures are reduced by 30 percent for network administrators and 50 percent for provider facilities. The residuals represent the insurance each entity would maintain for contract performance requirements.

Risk Adjustment

Risk adjustment means paying the actual risk (cost) adjusted price for care rather than an average or flat rate payment when the risk adjusted cost is significantly different. . Depending on the payment methodology used, the SPA will be responsible for risk-adjusted payment rates for services. The administrative complexity of reconciling costs with risk adjustment payments is incorporated into the administrative efficiencies of the single payer system.

[74] This includes profit (3 percent of the premium dollar) and reserves/capital accumulation (an additional 3 percent of premium dollar).

[75] The single payer advocates in the last legislative session suggested a 5 percent reserve for risk. This amount is roughly consistent with reserve fund needs calculated by LECG for other national systems. However, LECG recommends having additional financial reserve instruments to guard against catastrophic expenses.

iii. Benefit Package Pricing

As discussed earlier, the benefit package for this model is based on the GIC indemnity plan with out deductibles or other benefit design limits or enrollment screening.[76] A list of benefits covered under this plan is presented in Appendix N.

A standard commercial co-payment adjustment is introduced into the calculations, to be paid by consumers. We estimate that members will pay $20.00 on average per member per month. However, the Advisory Committee also recommends that citizens can not be denied service if individuals do not make the co-payments. This is consistent with the single payer system's cornerstone characteristic of access to care for all residents regardless of ability to pay.

iv. Payment Rates to Providers

LECG and the Advisory Committee noted that provider payments are the largest single cost of care. Committee members recognized that fees need be fair to keep providers in business, however there was considerable sentiment among Advisory Committee members that fees be set by the SPA.

Some Advisory Committee members felt that current Medicaid rates, on average, represent a fair fee schedule though some providers may be underpaid. Other members felt that rates should be set at market rates. To accommodate these views LECG modeled costs under two scenarios, a "low cost" Medicaid fee scenario and a "high cost" market rate scenario.[77]

v. Global Budgeting

Members of the Advisory Committee voiced support for global budgeting to finance facilities and large group practices.[78] Proponents believe that global budgeting will constrain the rate of growth in hospital and large group practice costs. LECG has not observed this to be the case. LECG notes that systems historically based on global budgeting, such as the NHS system in the U.K. and systems in Germany and the Netherlands, increasingly are using competitive, performance-based contracting. LECG assumes the SPA will use the best practices available and contract with a variety of delivery system components to increase efficiency in the system and not adopt a global budgeting strategy to purchase services. We expect to see three to five percent savings,

[76] Data for modeling costs based on the GIC package was not available. Although the GIC package is more comprehensive (e.g., it includes full dental and vision care) than the Medicaid package we used the Medicaid package and costs as a proxy with an adjustment for dental care. The Medicaid benefit does not have deductibles or other benefit design limits. We also make adjustments for various population groups.

[77] The "low cost " fee schedule is the Medicaid fee schedule driven cost model. The "high cost" pricing estimates is constructed by inflating the Medicaid rates by an average of 15 percent as a proxy for "market" rates. This adjustment is based on LECG's rate analyses in other States and the recent Governor's health care task force findings that incorporates the suggested 20 percent hospital rate increase.

[78] Global budgeting refers to giving the facility or group a single, global budget within which to provide all necessary services. In many countries, global budgeting is now seen as the root cause of many of the systemic inefficiencies in the health care system.

overall relative to fee-for-service care, similar to the savings reported under publicly purchased managed care contracts.[79, 80]

vi. Other Health Insurance

The Advisory Committee members agreed that other private insurance could be sold parallel to a single payer system. This implies that providers and insurers will necessarily maintain the administrative capabilities to bill multiple payers. Members of the Advisory Committee also agreed that consumers should have the option to purchase additional insurance or pay out-of-pocket for services in the private market if they so choose. Presumably this coverage would be to provide access to particular providers, provider systems, supplemental long-term care, and for elective procedures.[81]

vii. Automobile Medical Coverage

Most costs of health care due to automobile accidents are paid for by the insured's health insurance. Care paid for by automobile insurance medical coverage is primarily a wrap-around to one's health insurance. The Advisory Committee members deliberated this issue and decided to assume "no fault" costs under the single payer model, thus reducing the administrative expense of the system but still providing the care.

Automobile insurance accounted for approximately $295 million in health care spending in 2001. Under a single payer system, these funds would be transferred to the SPA. Administrative savings associated with these funds in the single payer model are assumed to mirror savings realized by network/insurer administrative services.

Out-of-state drivers would be expected to pay automobile accident related health claims through their own health or auto coverage or as determined by the courts.

Claims against uninsured out-of-state drivers will be pursued by the State's Attorney General's office. Health care costs associated with these claims will be treated as charity care claims by the providers rendering services. Providers will not be liable to pursue payment in the cases where out-of-state patients are not insured.

viii. Workers' Compensation

Like automobile insurance, the care provided under the current workers' compensation insurance system will be paid for by SPA. The dollars of workers compensation insurance currently dedicated to health care claims is $875 million. These funds would be transferred into the single payer system. Administrative savings associated with these funds in the single payer model are assumed to mirror savings realized by network/insurer administrative services.

[79] Global budgeting is strongly supported by several members of the Advisory Committee. LECG solicited a possible framework for global budgeting from the MASSCARE group. That framework is Appendix N

[80] In the modeling process, these savings are proxied by the use of managed care pricing premiums. They include steady state savings of three to five percent over predicted FFS equivalents.

[81] The prices of these products should be based on "fully loaded" costs to providers, including the administrative billing costs.

Occupational health is a specialty area of practice with unique provider skills. LECG does not anticipate significant savings or efficiencies by integrating payments under this model.

ix. Charity Care

Under the single payer model, there is no charity care for Massachusetts' residents. However, non-residents seeking care in the State may still require charity care if they are unable to pay for services. Given that the State contains preeminent research and teaching facilities, the probability that people will seek care at these facilities when unable to pay will exist. We reduce expenses for charity care by 50 percent.

x. Teaching and Research

Health care teaching and research functions in Massachusetts will continue as they have. Data on costs associated with medical teaching and research were provided by DHCFP. Further refinements to this data will be available to the Legislature in the future as the institutions involved improve their data reporting.

Some of the subsidies for health care teaching and research are currently add-ons to payments made by Medicaid and Medicare and will need to be "passed through" by the SPA.

xi. Physician Services

Physician services will be provided the same as today. Consumers will have a choice of physicians. Any willing provider in the State would be permitted to provide care regardless of their network affiliations. However this will increase administrative costs and may negatively affect utilization rates. Physician quality of care will continue to be monitored by the network administrators, the SPA, and through the certification process.

LECG and the Advisory Committee estimated administrative savings to physicians and physician practices using American Medical Association's estimates of average administrative costs for physicians. An average rate of 25 percent of revenue was assumed for our purposes across all specialties and practice group sizes. The change in those costs under a single payer system is estimated to be a 24 percent reduction in physician administrative expenses. As derived in the base case, physician services represent approximately 18 percent of total health care costs, this means that 24 percent of 25 percent of their costs is reduced, or a net impact of one to four percent of total health care costs. See Appendix M.

xii. Hospital Services

LECG and the Advisory Committee identified approximately 80 cost centers for inpatient and outpatient facilities' administrative functions and estimated the expected impact on administrative expenses of a single payer system. For example, regulatory compliance with respect to Medicaid and Medicare would be reduced by 80 percent under a single payer scenario, since compliance requirements will continue but the SPA will interpret State and federal requirements and mandate compliance requirements for providers.

The net impact of these changes is estimated at 2.57 percent of administrative costs. Hospital providers on average spend 31 percent of their revenues on administration. This translates into a reduction of one percent of total premium costs under a single payer system. A complete summary of all relevant adjustments is in Appendix L.

xiii. Behavioral Health

Behavioral health services will be provided as they are today. LECG estimated that 37 percent of behavioral health revenues are dedicated to administration. We then modeled cost changes like physician practice administration under a single payer system. The impact of this is a 24 percent reduction in administrative expenses, or a net decrease of one percent of total health care costs. See Appendix M.

xiv. Other Acute Care Services

These services are assumed to have administrative cost structures and potential savings similar to physician practices. The net impact of this is a 24 percent reduction in administrative expenses for these services, or a net decrease of less than one percent of total health care costs. See Appendix M.

xv. Long-term Care Services

Costs associated with long-term care and the related efficiencies that are incorporated in the single payer model. We assume that long-term care savings are not significant under the single payer system. In states where community-based programs have been implemented, system wide savings are uncommon. Service improvements are significant, but demand seems to negate savings. In the case of Massachusetts, a home- and community-based waiver program is already in place. Therefore we would not expect increased demand or savings.

Changes in the cost of acute care services associated with long-term care are included in Models 1 and 2. In the single payer model, cost changes were applied to acute care costs for seniors. Administrative efficiencies for long-term care providers are assumed to be similar to those of network providers. Therefore, the same savings are embedded in this item.

xvi. Pharmacy

Pharmacy is one of the fastest growing segments of health care expenditures. Prices are set in the marketplace.

Under the single payer model, the SPA would have substantial market power in buying pharmaceutical products. The Advisory Committee recommended that a reference pricing system be implemented for brand name medications, together with generic substitutes within therapeutic classes.

Reference pricing requires a closed formulary like large insurers and managed care organizations currently use. LECG estimates that a formulary would result in administrative costs and savings similar to those found in managed care. Formulary administrative savings are captured in the managed care network savings . A conservative estimate of savings in the costs of the drugs themselves are proxied by the

Medicaid expenditures with the manufacturers best price rebates paid to Massachusetts to reflect Federal government purchasers that receive the best price under a "federal supply schedule" pricing structure plus adjustments for utilization and co-payments.

The LECG model assumes the same administrative cost savings for retail pharmacy providers as physician practices under the single payer model. We estimate that 15 percent of total pharmacy revenue is devoted to administration; of that a 24 percent gain will be realized under the single payer model, or a 1.4 percent reduction in the total costs of care. See Appendix M.

b. Costs of operating the single payer health system

Two sets of results are presented. The first set of results provides estimates of the single payer system of care covering the same people covered today, with the same costs and prices for care, and benefit packages as today. The second set of results estimates the costs of the single payer system in Massachusetts with universal coverage and the single payer fee-schedules discussed above.

Figure 32, below presents current health care expenditures in Massachusetts derived from the base case analysis in Section III. The information is displayed by category of service allocated by private-sector or public-sector payers.[82] The total expenditures are based on the total estimated expenditure in Massachusetts of $41, 429, 496,960 in 2002.

The categories of service expenditures are based on the breakdown of costs per insurance dollar (in Massachusetts) adjusted for public and private payer differences in administrative costs and utilization rates as presented in the base case. Figure 32 is designed to help compare the single payer model costs to the base case while highlighting the savings accrued by the type of service provided.

Figure 32 shows that approximately 56 percent of the estimated $41.429 billion spent on health care in Massachusetts is currently paid by public sector payers and, ultimately comes from federal, state and local taxes paid by Massachusetts and other states' citizens in the US.

[82] The costs of care for Personal auto-medical, workers compensation and the uninsured our of pocket expenditures are not allocated back to the acute care services as there were no actuarially sound allocation tables available.

Figure 32 - Total Estimated Health Care Expenditures in Massachusetts, 2002, by Type of Care Provided and other Payments

TOTAL ESTIMATED HEALTH CARE EXPENDITURES **Health care costs under the current private and public sector payment schedules**				
	Private Sector Expenditure		**Public Sector Expenditure**	**Total Expenditure**
Profit	$ 449,896,724			$ 449,896,724
Reserves/capital accumulation	449,896,724			449,896,724
Insurer administration	1,499,655,748		1,680,389,783	3,180,045,531
Hospital-inpatient	4,498,967,243		5,377,247,305	9,876,214,548
Hospital-outpatient	1,049,759,023		1,176,272,848	2,226,031,871
Physician	2,699,380,346		3,360,779,566	6,060,159,912
Behavioral health	1,499,655,748		1,680,389,783	3,180,045,531
Pharmacy	1,799,586,897		2,352,545,696	4,152,132,593
Ancillary services	749,827,874		840,194,891	1,590,022,765
Other	299,931,150		336,077,957	636,009,106
Dental	1,650,000,000			1,650,000,000
Long-term care				
Medicaid			1,900,000,000	1,900,000,000
Non-Medicaid			3,700,000,000	3,700,000,000
Personal auto-medical	295,000,000			295,000,000
Workers compensation	875,000,000			875,000,000
Uncompensated care pool	66,000,000			66,000,000
Uninsured	355,816,848			355,816,848
State Administration				
Regulatory & Operating Administration for State-Based Programs		$	69,282,350	
State Administration (Medicaid & GIC only)		$	168,729,258	
Teaching and Research Costs		$	549,213,199	
Estimated Total Health Care Expenditures	**$ 18,238,374,324**	**$**	**23,191,122,636**	**$ 41,429,496,960**

Figure 33, below, presents estimates of the fully implemented single payer costs and savings using the current provider prices in the Massachusetts market. Figure 33 incorporates the current private sector average provider payment rates and benefit packages together with the average public sector Medicaid and Medicare payment rates and benefit packages. Costs for the uninsured are assumed paid at the public sector rates using the Medicaid benefit package. Note that this means that the currently under-insured remain under insured in this analysis. This is a source of much of the system wide savings indicated in this analysis.

The total costs of care, using the current payment rates and benefit packages are shown in the first column of figure 33. The second column shows the cost of providing the same services with all savings attributable to a single payer system. The third column shows the computed, estimated single payer system savings or (costs). The fourth column shows the calculated percentage savings and costs.

The results indicate that the sum of the changes representing hundreds of costs and savings is a net savings of 5.17 percent in the cost of care. These savings are mitigated by the single payer agency administrative cost increases captured as state administrative costs for an estimated total savings of $1.7 billion or 4.09 percent of total health care

expenditures compared to total estimated health care expenditures of $41.429 billion in Massachusetts in 2002.

Note that these savings estimates do not include the transition costs to the economy or the costs of implementing the single payer system.

In Figure 33 savings are expressed as a positive number, additional cost compared to expenditures in Massachusetts in 2002 are expressed as a negative number. For example, the costs of increased state paid administration for the SPA are an increased cost that reduces savings. These costs are expressed as a negative number.

Figure 33 does not represent universal coverage. Figure 33 only shows the possible savings in accruing from the single payer administrative model with no improvements in coverage nor coverage for the uninsured.

Figure 33 - Savings Attributable to a Single Payer System with NO change in underinsurance and no universal coverage

TOTAL ESTIMATED HEALTH CARE EXPENDITURES Single payer savings and costs under the current private and public sector payment schedules	Base Case Total Expenditure	Single Payer Total Expenditures in Today's World	Single Payer Dollar Savings/Costs	Savings/ Costs
Profit	$ 449,896,724	$ 449,896,724	$ -	0.0%
Reserves/capital accumulation	449,896,724	449,896,724	0	0.0%
Insurer administration	3,180,045,531	2,839,646,123	340,399,408	12.0%
Hospital-inpatient	9,876,214,548	9,622,369,634	253,844,914	2.6%
Hospital-outpatient	2,226,031,871	2,168,816,947	57,214,925	2.6%
Physician	6,060,159,912	5,698,822,877	361,337,035	6.3%
Behavioral health	3,180,045,531	2,899,422,413	280,623,118	9.7%
Pharmacy	4,152,132,593	4,003,590,050	148,542,544	3.7%
Ancillary services	1,590,022,765	1,495,217,658	94,805,107	6.3%
Other	636,009,106	598,087,063	37,922,043	6.3%
Dental	1,650,000,000	1,551,618,750	98,381,250	6.3%
Long-term care				
Medicaid	1,900,000,000	1,786,712,500	113,287,500	6.3%
Non-Medicaid	3,700,000,000	3,479,387,500	220,612,500	6.3%
Personal auto-medical	295,000,000	277,410,625	17,589,375	6.3%
Workers compensation	875,000,000	822,828,125	52,171,875	6.3%
Uncompensated care pool	66,000,000	64,303,625	1,696,375	2.6%
Uninsured	355,816,848	334,601,268	21,215,580	6.3%
Total Medical Costs	**$ 40,642,272,153**	**$ 38,542,628,606**	**$ 2,099,643,548**	**5.17%**
State Administration				
Regulatory & Operating Administration for State	$ 69,282,350	$ 138,564,699	$ (69,282,350)	-50.0%
State Administration (Medicaid & GIC only)	$ 168,729,258	$ 506,187,775	$ (337,458,516)	-66.7%
Teaching and Research Costs	$ 549,213,199	$ 549,213,199	$ -	0.0%
Estimated Total Health Care Expenditures	**$ 41,429,496,960**	**$ 39,736,594,278**	**$ 1,692,902,682**	**4.09%**

The second set of analyses and results present the costs and savings of the fully implemented Single Payer system in Massachusetts. The full model includes coverage for all Massachusetts residents. Everyone is covered with the GIC benefit package with the administrative savings and costs developed in the previous analysis. There are no underinsured people in this model. Population wide utilization rates are adjusted to reflect no benefit design limits, no deductibles and no cost sharing other than the "voluntary" co pays discussed earlier.

Because of utilization, and therefore cost differences across several of the population sub-groups groups we have segmented the population by available risk profiles. The following population groups are segmented to facilitate this analysis:

- The elderly are one risk group. Their care includes all the services covered by Medicare, the full Medi-gap package and a full prescription pharmacy package. Costs of care for this group incorporate the single payer costs and savings developed in the previous analysis. Long-term care is priced separately as described below. There are 861,206 people in the elderly population.

- The disabled are the second risk group. This group includes the estimated number of insured disabled in Massachusetts plus the estimated number of currently uninsured and disabled in Massachusetts. For the currently uninsured disabled LECG estimates their average cost of care to be equal to nine times the average cost of the non-disabled, adult population.

- The third risk group is pregnant women, with two sub-groups identified. The subgroups are complex delivery pregnancies and high-cost premature delivery babies (intensive-neonatal care deliveries). The expected incidence of each is 8,200 per year in Massachusetts. Costs for normal pregnancies are estimated at $6,600 for twelve months of care; $9,000 for a complex delivery and $60,000 for a premature baby delivery.

- The fourth risk group is all other people, children and adults. This group is expected to have reasonably predictable costs. LECG estimates 5.2 million people in this group with costs ranging from $3,400 per person per year to approximately $4,000 per person per year.

In addition to these risk pools of people there are four dedicated types of care priced separately. These are dental care, personal auto-medical, worker's compensation services and long-term care.

The fully implemented model is priced using the "low cost" Medicaid fee schedule and the "high cost" market rate fee schedule based on inflated Medicaid pricing.

Finally, the operating costs of the SPA to administer and regulate the system based on current state expenditures to manage Medicaid, adjusted for the size of the population covered, and assuming increased efficiencies are included. The overall administrative costs are at or below those found in other industrialized countries.[83]

Figure 34, below shows the results of this analysis.

[83] Note that an administrative efficiency adjustment is made to all services provided to reflect the identified savings at the system administration level in addition to network administration savings incorporated in the pricing models used in the Medicaid pricing schedules. The adjustment is the 5.17 percent savings adjustment that reflects provider savings as calculated in Figure 33, above.[83]

Figure 34 – Universal Coverage, Steady State. Single Payer Cost Analysis

Full Single Payer Cost Analysis			
		Total Expenditures	
Population Groups	**Population**	**Low Cost Pricing**	**"Reasonable" Cost Pricing**
Age 65+	861,206	$ 9,184,209,170	$ 9,184,209,170
Disabled	191,379	3,444,824,160	3,961,547,784
Pregnant women	82,000	541,200,000	541,200,000
Complex pregnancies	8,200	73,800,000	73,800,000
High cost deliveries	8,200	492,000,000	492,000,000
All other individuals	5,228,319	21,582,500,172	24,819,875,197
Average annual copays		1,531,032,960	1,531,032,960
SUBTOTAL:	**6,379,304**	**$ 36,849,566,461**	**$ 40,603,665,111**
Administrative Efficiency Adjustment:		**5.17%**	
Acute Care Single Payer Cost of Services		**$ 34,945,860,041**	**$ 38,506,016,064**
Dental		1,551,618,750	1,551,618,750
Personal auto-medical		277,410,625	277,410,625
Workers compensation		822,828,125	822,828,125
Medicaid long term care		1,786,712,500	1,786,712,500
Non-Medicaid long term care		3,479,387,500	3,479,387,500
Single payer regulation		138,564,699	138,564,699
Single payer administration		506,187,775	506,187,775
Add-on expenditures for teaching/research hospitals		549,213,199	549,213,199
TOTAL:		**$ 44,057,783,213**	**$ 47,617,939,237**

4. IMPACT

The single payer model is the most comprehensive consolidation of finance and streamlining of care among the three reform models. In this case LECG believes that the single payer system will take the most time to fully implement and prompt the most legal and political debate of the three models before it is approved and implemented. Of the three reform models the single payer model is the only one that assures universal access to organized care for all Massachusetts residents.

There is no reason to speculate that the average quality of care in the single payer model will vary much from today.

- Based on experience in other countries, we expect that the people with lower quality care today, primarily the uninsured, will experience better overall care under a single payer/universal coverage model.
- Similarly, those individuals who receive the best care today may experience lower quality care in terms of greater waiting time for services, less choice of provider and, in the event of catastrophic need, less sophisticated quadriary services than they have access to today.

- Historically, universal coverage systems have used waiting lists and other forms of prioritization to "rationally" distribute health care resources.

The single payer/universal coverage model will provide coverage for all residents of Massachusetts. It will substitute a quasi-governmental payer and regulator for the current market's basket of public and private payers and insurers. The private sector health insurance industry will shrink significantly and focus on wealthy consumers who want to augment the services available under the single payer system and niche insurance issues such as counseling or therapeutic massage services as is seen in some European countries.

The economic impacts of the single payer model are complex.

Like the impact analyses for Models 1 and 2 LECG has done a multiplier analysis of the redistribution in private and public, federal and state funds in the system. The employment impact is estimated at 9,000 to 20,000 new jobs over the ten-year period due to increased spending on health care; however the net impact on the labor market is indeterminant. The impact analysis results are misleading because the analysis cannot estimate the labor force disruption in the private insurance markets together with the SPA's yet to be determined management, monitoring and regulatory strategies. LECG is not publishing the full impact analysis since the mitigating factors cannot be quantified with the available information. Furthermore, The economic impact analysis does not account for implementation costs and the structural change in the services/insurance industry that accompanies the single payer system.

The structural changes will, in the best case, cause a disruption in employment for hundreds and perhaps thousands of insurance industry employees. Disruptions in employment and job search, change and relocation costs are a significant problem for the individuals affected and a drain on the overall economy when a relatively large industry is affected. A similar example is the ongoing manufacturing industry transition throughout New England. In this case a thorough business planning cycle by the health care insurance industry and with Commonwealth labor experts is needed to quantify the impacts.

Using Medicaid waiver costs as an initial proxy for limited systemic changes, it is clear that structural reorganizations of this scale are expensive. Medicaid waiver implementations can cost in excess of $100 million over a five-year implementation. More dramatic system reform may cost much more. It is beyond the scope of this project to estimate system specific reform costs but it is fair to say that these costs will be dramatically higher than any seen to date in the Commonwealth.

Another impact area to be considered is the impact on providers. A monopsony power in the market, like the SPA, can be expected to exhibit rational strategies to reduce the costs of inputs. In other words, if providers lose leverage/power in the market because only

one purchaser exists, they may reasonably expect to see their incomes decline over time.[84]

5. IMPLEMENTATION ISSUES

This model is the most dramatic departure from the current state of affairs. Usually system changes of this magnitude take five to ten years to be completed, and, generally are revised dramatically during the implementation process. For example, the Tenncare and Oregon Health Plan Medicaid reforms took a number of years to organize new delivery, eligibility and payment systems, without system wide changes in funding and revenue flows that are also implied by the single payer model.

The primary political and legal issue may well become the ascention of health care to the status of a public "right" for residents of the Commonwealth. Ultimately such a right could imply access to unlimited care and unlimited expense subject to some, as yet undetermined definition of "medical necessity."

Another political and legal issue behind this model is the waiver of federal requirements needed to pool all the federal and self-insured employer direct care payments in the Commonwealth. There is ample precedent for Medicaid waivers, though more limited in scope than Massachusetts will need. There is little precedent for the needed Medicare waivers.

The self-insured employer payments require statutory changes in the federal ERISA statutes. Currently the right of a State to require self-insured employers to participate in programs like a single payer system is effectively prohibited under current ERISA statutes. There is and has been ongoing congressional review of these requirements. The Commonwealth's congressional delegation is in the best position to advise the Commonwealth on likely future changes to ERISA.

Development of a single payer system requires the largest implementation effort of the three models. A trust fund and its administrative agency must be developed and staffed. Policies and procedures require defining, developing, and implementing. Several State agencies need to be combined, downsized, disbanded, or reconfigured. The public advisory process would also need definition.

Procedures would need to be developed to ensure that only Massachusetts' citizens who reside in the State for at least nine months each year receive coverage.

Support from the federal health care administrative agency will be required (CMS). This agency historically has refused to approve initiatives that allow the co-mingling of Medicare and Medicaid funds. Perhaps a pilot project, in a contained area such as the Cape, would be a good first step.

[84] The purchaser's monopsony power in the market may explain part of the relatively lower average income of health care professionals in most industrialized countries relative to the United States.

Below are ballpark estimates of costs administrative implementation costs for the single payer system:

($millions)

SPA Development	Agency definition, staffing, facilities	15
	Regulation development – Waiver procurement – Insurance issues – reinsurance, liability – Staffing – Quality assurance	25
	IT development and implementation	50
Delivery System Development	Initial procurement process	10
	Pharmacy purchasing system	15
	Pricing/actuarial studies	3
	Contracting	4
Other Expenses	Staff training	3
	Consulting	3
	Legal	6
Total Estimated Implementation Cost:		$134

Appendix P presents an estimated implementation cost model for the single payer model using a six year time horizon for both high and low cost provider payment schedules. It is based on the implementation cost estimates listed above and discussed with the Advisory Committee. The model assumes a two-year design and implementation timetable before the first enrollees begin to receive care. Then a four-year graduated "roll-out" of the enrollee base into the single payer system. This is an extremely aggressive timeline.

V. CONCLUSIONS

Each model makes universal coverage and access to care possible for all citizens of the Commonwealth consistent with the legislative mandate.

Each model consolidates financing and streamlines delivery of care, although the degree of consolidation and streamlining varies significantly from model to model.

Each model incorporates the Advisory Committee members' basic social contract. The social contract is that all residents of Massachusetts have a right to health care, but are expected to pay for the services received up to a prescribed responsibility to pay based on their family income level. In Model 1, purchasing health insurance is voluntary. In Models 2 and 3, purchasing health insurance is mandatory, as a direct purchase in Model 2 and using predominately existing and some new state taxes in Model 3. Specifically, Massachusetts residents are expected to pay up to the average costs of care, in Models 1 and 2 if their family income is equal to or greater than 300 percent of the federal poverty level. In Model 3 all employed people are expected to contribute through a payroll deduction plan, however there are tax-based subsidies for all citizens whose income is less than 300 percent of the federal poverty level. In Model 3 all sources of government spending for care is assumed to be redistributed and administered by the SPA.

Figures 35, 36 and 37 compare the models in terms of cost, expected participation and universality of coverage and finally, parameters of financing consolidation and streamlining of delivery of care.

Figure 35 - Cost Comparisons

Model Cost Comparison

Base Case Health Care Spending			**$41,429,496,960**
Total Estimated Population:			**6,379,304**
Model 1A (steady state)		**Per Insured Cost**	**Per Capita Cost**
High Enrollment	$44,233,692,837	**$7,121**	**$6,934**
Low Enrollment	$43,132,034,549	**$7,039**	**$6,761**
Model 1B (steady state)			
High Enrollment	$ 45,345,658,763	**$7,300**	**$7,108**
Low Enrollment	$ 43,857,392,859	**$7,157**	**$6,875**
Model 2A (steady state)			
High Enrollment	$ 45,096,845,175	**$7,069**	**$7,069**
Low Enrollment	$ 44,859,775,687	**$7,099**	**$7,032**
Model 2B (steady state)			
High Enrollment	$ 45,652,032,901	**$7,156**	**$7,156**
Low Enrollment	$ 45,398,084,729	**$7,184**	**$7,116**
Model 3 (steady state)			
"Reasonable Cost" Assumption	$ 48,033,441,680	**$7,530**	**$7,530**
Assumes Current Medicaid Reimbursement	$ 44,395,421,835	**$6,959**	**$6,959**

Although costs are expected to occur over a 5-year ramp-up period, figures represent present values (2002 $s).

Estimated costs subtract out-of-pocket health care expenses of uninsured (but not UCP costs).

The steady state incremental cost of Model 3 ranges from nearly three billion to six billion dollars, the per capita incremental cost of covering the uninsured is then $7,400 per person, or some $700 more than the current per capita costs today. The difference represents the consistent breadth and quality of care (as discussed above) provided under the single payer model.

The estimated number of people covered under each model is presented below.

Figure 36 - Population Coverage

Insurance Coverage Comparison			
Total Estimated Population:		6,379,304	
Base Case Coverage:		5,979,903	
Base Case Uninsured:		399,400	
Model 1 (steady state)	**Incremental Coverage**	**Total Coverage**	**Remaining Uninsured**
High Est. Enrollment	231,652	6,211,555	167,749
Low Est. Enrollment	147,778	6,127,681	251,623
Model 2 (steady state)			
High Est. Enrollment	399,400	6,379,303	None
Low Est. Enrollment	339,490	6,319,393	59,911
Model 3 (steady state)			
Enrollment		6,379,304	None

At this juncture in the development of the Massachusetts health care system and given the current state budget crisis LECG recommends that the state initially focus on maximizing federal matching by expanding the Medicaid program to provide coverage for all residents. LECG recommends that the public sentiment be polled as to whether the expansion should be based on mandatory or voluntary participation. LECG recommends that the current budget cuts and programs retrenchments be reconsidered in light of the community health and cost impacts that further disruption in the delivery of care may have upon the more vulnerable elements of society.

In the longer term LECG suggests that further study of more dramatic systemic reorganizations be continued. The current Massachusetts health care system is clearly one of the premier systems in the world, however the costs of the system are becoming prohibitive to the residents of the Commonwealth. The current analysis indicates that there are finance, administrative and delivery system efficiencies that can be realized with restructuring of the system. To realize these efficiencies it may be necessary to dramatically change the way health care is paid for and delivered in Massachusetts. The current analysis also, implicitly, highlights the fact that human capital continues to be the single largest cost in the delivery of health care. We also recognize that the investment in human capital is probably the single greatest strength in the current health care system, whether manifest in technology or direct care practitioners.

VI. APPENDICES

A. ADVISORY COMMITTEE MEMBERS

Senator Mark Montigny and Representative Nancy Flavin, Committees on Ways and Means
Senator Marian Walsh and Representative Paul Casey, Joint Committee on Taxation
Senator Richard Moore and Representative Harriett Stanley, Joint Committee on Health Care
Senator Therese Murray and Representative Ronald Mariano, Joint Committee on Insurance
Senator Robert Hedlund, Senate Minority Member
Representative John Lepper, House Minority Member
Mary Beckman, Executive Office of Health and Human Services
Linda Ruthardt, Division of Health Care Finance and Policy
Kathleen Casavant, State Labor Council of the American Federation of Labor/Congress of Industrial Organizations
Rick Lord, Associated Industries of Massachusetts
Alan MacDonald, Massachusetts Business Roundtable
Geoffrey Beckwith, Massachusetts Municipal Association
Bob Gibbons, Massachusetts Hospital Association
Joseph Heyman, MD, Massachusetts Medical Society
Judith Shindul-Rothschild, Massachusetts Nurses Association
Michael Katzman, Massachusetts Association of Health Maintenance Organizations
Jim Hunt, Massachusetts League of Community Health Centers
Patricia Kelleher, Home and Health Care Association of Massachusetts
Arthur Mazer, Massachusetts Human Services Coalition
Tara Gregorio, Massachusetts Extended Care Federation
Victoria Pulos, Massachusetts Law Reform Institute
Phil Mamber, Massachusetts Senior Action Council
Marcia Hams, Health Care for All
Barbara Roop, Mass-Care
Lisa Carroll, Small Business Service Bureau
Jenny Erickson, Life Insurance Association of Massachusetts
John Goodson, Ad Hoc Committee to Defend Health Care
Celia Wcislo, Service Employee International Union

B. INTERVIEWEE LIST

Representative Nancy Flavin and Jay Tallman
Rebecca Watson and Tom Dehner, Senate Committee on Ways and Means
Louis Freedman, Susan Kennedy, Katharine London, Amy Lischko, and Maria Schiff, Division of Health Care Finance and Policy
Mary Beckman, Executive Office of Health and Human Services
Peter Meade and Jay Curley, Blue Cross Blue Shield of Massachusetts
Barbara Roop, Barbara Ackermann, and Dick Mason, Mass Care
Michael Carr, Universal Health Care Education Fund
Senator Richard Moore and David Martin
John Goodson and Andre Guillemin, Ad Hoc Committee to Defend Health Care
Representatives of the MA Nurses Association
Marylou Sudders, Department of Mental Health
Linda Ruthardt, Division of Insurance
Janice Bourque and Stephen Mulloney, Massachusetts Biotechnology Council
Dolores Mitchell, Group Insurance Commission
Nick Littlefield, Foley Hoag Attorneys at Law
Senator Harriette Chandler
Patricia Kelleher, Home Health Care Association of Massachusetts, Inc.
Charles Baker, Harvard Pilgrim Health Care, Inc.
Jim Callahan, Brandeis University, Heller School for Social Policy and Management
Kathy Cassavant and Rich Marlin, Massachusetts AFL-CIO
Celia Wcislo, Service Employees International Union, Local 285
Arnold Relman, M.D.
Bob Taub and Jim O'Connell, Health Care for the Homeless
Marcia Angell, M.D., Senior Lecturer, Department of Social Medicine, Harvard Medical School
Timothy O'Leary and Bernard Carey, Massachusetts Association for Mental Health, Inc.
Senator Therese Murray
Representative John Lepper
Joe Heyman, MD
Stephen Caulfield, The Chickering Group
Jim Hooley, Neighborhood Health Plan
Jill Wiley, David Carl Olsom, and Robert Austin, Massachusetts Council of Churches
Elaine Ullain and Thomas Traylor, Boston Medical Center
John McDonough and Brian Rosman, Brandeis University, Heller School for Social Policy and Management
Marylou Buyse, M.D. and Michael Katzman, Massachusetts Association of Health Plans
Bruce Bullen, Laura Pellegrini, and Bill Graham, Harvard Pilgrim Health Care Inc.
Eric Schultz and Richard Burke, Fallon Community Health Plan
Mel Bentson, Neighborhood Health Plan
Susan Tully, Aetna US Healthcare
Jim Kessler, Health New England, Inc.
Jon Kingsdale, Tufts Health Plan
Bob Gibbons, James Kirkpatrick, and Timothy Gens, Massachusetts Hospital Association

Andrew Dreyfus and Sarah Kerr Iselin, Blue Cross Blue Shield of Massachusetts Foundation
Tara Gregorio and W. Scott Plumb, Massachusetts Extended Care Federation
Barbara Sullivan, League of Women Voters
Elizabeth Funk, Mental Health & Substance Abuse Corporations of Massachusetts, Inc.
Marcia Hams and Michael Miller, Health Care for All
Vicky Pulos and Neil Cronin, Massachusetts Law Reform
Howard Koh, Department of Public Health
John O'Brien, Cambridge Health Alliance
Hank Porten, Holyoke Hospital
Norman Stachelek, Cooley Dickinson Physician Hospital Organization
Fred Swan, Springfield Southwest Community Health Center, Inc.
Alan Sager, Boston University School of Public Health
Phil Mamber, Jeremiah Hurley, John Boessen, Tilly Teixeira, Marjorie Gatchell, Sterling Alam, Albertha Herbert, and Sue Kirby, Massachusetts Senior Action Council
Representative Harriett Stanley and Katie Annis
Stuart Altman, Brandeis University, The Heller School for Social Policy and Management
James Klocke, Greater Boston Chamber of Commerce
Eileen McAnneny, Associated Industries of Massachusetts
Kathy Reinhardt, Analog Devices, Inc.
Ann Aaberg, Massachusetts Healthcare Purchaser Group
Shannon Linde, Massachusetts Business Association
Diane Avellar, Raytheon Company
Bill Vernon, National Federation of Independent Businesses
Representative Thomas Finneran
Jim Hunt, Massachusetts League of Community Health Centers
Lisa Carroll and Jeff Busha, Small Business Service Bureau, Inc.
Liz DiCarlo, Cheryl Bartlett, Robin Rowland, M.D., Len Stewart, and Susan Williams, M.D., Lighthouse Health Access Alliance

C. STAKEHOLDER INTERVIEW QUESTIONS

A. Please describe your current position.
B. In the legislation that established the Advisory Committee and this project, the feasibility of "…establishing a system of consolidated health care financing and streamlined health care delivery accessible to every resident of the Commonwealth…" was debated. How would you define "consolidated health care financing" and "streamlined health care delivery"?
C. How would you evaluate whether health care is accessible to every resident? Does this just mean availability or also affordability? Are there other issues that you see affecting accessibility?
D. What are the strengths of Massachusetts' current health care delivery system? What are the weaknesses? Please consider access to services, cost of these services, administrative duplications, and other issues that you deem important.
E. From your perspective, what barriers exist to the establishment of a consolidated health care financing and streamlined health care delivery system?
F. How do you think these barriers can be overcome?
G. If you could design the perfect health care program for Massachusetts' residents, what would it include?
H. Given the fact that resources are limited, if you could fund a single initiative, what would it be? Why? What benefit would you expect?
I. Do you have any additional comments you wish to make?
J. Can you suggest other people with whom we should speak? Do you have any reports or documents that would be helpful to us?

D. CONSUMER HEALTH CARE SURVEY

The Advisory Committee on Consolidated Health Care (created by the Managed Care Reform Act of 2000) has hired an independent consultant. This firm, LECG, LLC, will develop models of a system to provide health care access to every Commonwealth resident. The Legislature will utilize LECG's report and its modeling results to improve the delivery of health care services to all Massachusetts' citizens.

Part of LECG's work involves the gathering of information from the public. We are very interested in your opinions on health care in Massachusetts and ask that you take a few moments to answer the following questions. The information you provide in this survey represents an opportunity for your voice to be heard on the critical issue of health care reform. Your opinions will be carefully reviewed and shared with the Advisory Committee on Consolidated Health Care and will be taken into account as we develop models of a system to provide health care access to every Commonwealth resident.

To ensure that your opinions are heard, please mail the completed survey in the attached postage paid envelope by Friday, March 15, 2002. Thank you for your participation.

1. Through what primary source do you currently receive or purchase health insurance:
   ☐ Employer-sponsored ☐ Privately purchased ☐ Publicly funded programs
   ☐ I do not have health insurance

2. How satisfied are you with your ability to access the following health care services when you or a family member need care?

Medical Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Mental Health Services	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Home Health Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Long-term Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A

3. How satisfied are you with the cost you pay for the following health care services?

Medical Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Mental Health Services	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Home Health Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A
Long-term Care	☐ Very satisfied	☐ Satisfied	☐ Not satisfied	☐ N/A

4. Over the past two years, how often have you had to change health insurance companies or health plans.?
   ☐ None ☐ Once ☐ Twice ☐ Three or more times

5. Over the past two years, how many times were you or a family member without health insurance?
   ☐ None ☐ Once ☐ Twice ☐ Three or more times ☐ Have not had health insurance

6. Over the past two years, how often have you or a family member involuntarily had to change doctors or other health care providers?
   ☐ None ☐ Once ☐ Twice ☐ Three or more times

7. Based upon the health care services currently available to you and your family members, how do you feel about the cost that you pay for these services?
   ☐ I think that I should pay less than I currently pay
   ☐ I am satisfied with the amount I currently pay
   ☐ I am willing to pay more than I currently pay

8. To establish a system of consolidated health care financing and streamlined delivery accessible to every Massachusetts resident:
   ☐ I think that I should pay less than I currently pay
   ☐ I think that I should pay the same amount I currently pay
   ☐ I think that I should pay more than I currently pay

9. Do you have any comments you wish to make?

E. BASE CASE SOURCES

Note: All data obtained prior to 2002 have been trended to 2002 dollars.

Average Massachusetts Medicaid rates for each age category were computed from Mercer Medicaid data. Premiums are for the Temporary Assistance to Needy Families (TANF) Medicaid population, as opposed to the more expensive aged, blind, and disabled (acute care only) Medicaid populations that are computed separately.

Other state and local (federally-matched) programs include health expenditures of the Dept. of Mental Health, the Dept. of Public Health, the Massachusetts Rehabilitation Commission, the Executive Office of Elder Affairs and local public health departments.

State and local health-related department administrative expenses include the Dept. of Medical Assistance (Medicaid), Dept. of Mental Health, Dept. of Public Health, the Massachusetts Rehabilitation Commission, the Executive Office of Elder Affairs, Public Health Commissions, Division of Health Care and Policy, UMass Center for Health Care Finance, and local public health departments.

Medicaid long-term nursing care expenses were obtained from CMS 64 forms.

Medicaid home health expenses were obtained from CMS 64 forms and includes personal care assistants (PSAs), adult family care and hospice.

Total Medicare expenses were obtained from CMS.

Medicare supplemental insurance information was obtained from the Massachusetts Division of Insurance (DOI). Figures include individual and group (including retirees of union and employer plans), supplemental and Medicare HMO policies.

Out-of-pocket prescription drug expenditures by the elderly were based on pricing models developed for Hawaii and Washington by LECG staff.

Non-Veterans health care coverage costs were obtained from Tricare, 2001.

Veterans Health Administration (VHA) mostly covers service related injuries; non-service related coverage is minimal. We assume VHA coverage is unaffected by any adoption of a new health care delivery model in Massachusetts.

Correctional facility health expenditures are assumed to remain outside of our models.

Other governmental expenditures include all State-sponsored health programs and the administrative agencies that operate them which are not federally matched. Expenditures were obtained directly from the State's fiscal year 2002 YTD Actual Spending Accounts (6-25-02).

Children's Medical Security Plan enrolls children who meet specific income requirements and are not eligible for MassHealth. Many enrollees are undocumented residents.

Non-group rates and enrollee statistics in the State were provided by the Massachusetts DOI, 2001.

Medical expenditures paid by auto insurance companies were based on estimates from the Auto Insurance Bureau of Massachusetts, 2001.

Workers' compensation numbers were based on estimates from the Workers' Compensation Rating and Inspection Bureau of Massachusetts, 2001.

UCP dollars only include non-duplicated dollars into the system (i.e., surcharges on hospitals or providers are not included here because they are already accounted for in premium dollars); data provided by DHCFP.

Dental expenditures include both dental insurance premiums and out-of-pocket expenses for dental care. Estimates were based on CMS data.

Insured out-of-pocket expenses were based on estimates from "Trends in Out-of-Pocket Spending By Insured American Workers, 1990-1997," Gabel, JR: *Health Affairs*, March/April 2001, pp. 47-57. Our estimates include co-payments and deductibles but not elective non-covered services.

Costs related to teaching at hospitals were calculated from data directly extracted from the FY'99 403, State of Massachusetts (DHCFP) hospital cost report dataset.

Unreimbursed health-related expenditures made by uninsured individuals was based on the Oregon Health Plan model and adjusted by medical care services consumer price index to 2002 dollars ($890.88 per year).

Division of Medical Assistance
Federal Reimbursement for Other Governmental Agencies for Program Costs

Governmental Agencies	FY 2001 FFP	FY 2002 FFP	Projected FY2003 FFP
Dept. Mental Health	$ 107,045,154	$ 103,511,505	$ 84,486,500
Dept. Mental Retardation	$ 357,966,063	$ 352,356,958	$ 427,517,500
Dept. Public Health	$ 63,514,946	$ 60,394,676	$ 60,794,391
Dept. Social Services	$ 42,588,390	$ 60,748,881	$ 71,690,500
Dept. Youth Services	$ 3,179,209	$ 3,904,726	$ 3,574,800
Mass. Rehab. Commission	$ 1,438,794	$ 1,313,856	$ 1,475,000
Exec. Office Elder Affairs	$ 3,573,637	$ 8,141,877	$ 9,000,000
Cities and Towns	$ 50,946,778	$ 52,067,176	$ 80,000,000
Total Program Costs	**$ 630,252,971**	**$ 642,439,656**	**$ 738,538,691**

Division of Medical Assistance
Federal Reimbursement from Other Governmental Agencies for Administrative Costs

Governmental Agencies	FY 2001 FFP	FY 2002 FFP	Projected FY 2003 FFP
Dept. of Mental Health	$ 6,264,071	$ 5,410,948	$ 7,199,340
Dept. of Mental Retardation	$ 402,802	$ 249,393	$ 400,000
Dept. of Public Health	$ 2,717,145	$ 686,106	$ 1,800,000
Executive Office of Elder Affairs	$ 6,372,063	$ 6,303,585	$ 4,735,000
Dept. of Transitional Assistance	$ 17,989,173	$ 16,383,381	$ 17,233,457
Mass. Rehab Commissions	$ 331,008	$ 414,864	$ 1,203,000
Cities and Towns	$ 32,806,815	$ 42,148,460	$ 56,000,000
Public Health Commissions	$ 1,961,540	$ 929,051	$ 900,000
Division of Employment and Training	$ 712,204	$ 3,023,441	$ 1,700,000
Division of Health Care and Policy	$ 4,712,528	$ 4,064,031	$ 4,500,000
Commission for the blind	$ 304,002	$ 288,150	$ 300,000
UMass Center for Health Care Finance	$ 31,794,506	$ 16,824,840	$ 30,453,791
Total Administrative Costs	**$ 106,367,857**	**$ 96,726,250**	**$ 126,424,588**

Note: Both of these charts represent only the federal FFP estimates. Therefore, State budget amounts are twice these estimates.

F. BREAKDOWN OF MEDICAID DOLLAR

Statewide Massachusetts Fee for Service Medicaid Rate
Member Months from SFY 2000 (7/1/99-6/30/00)
Claims Midpoint 7/1/2001

	Ages 0-18	Ages 19-64
Member months:	2,612,477	1,319,994
Service Category	PMPM	PMPM
Alternative care	$0.01	$0.12
Ancillary	$0.87	$1.26
Behavioral health	$64.79	$77.11
DME	$2.26	$3.13
Emergency services	$6.85	$9.27
Home health	$2.93	$4.80
Inpatient	$25.96	$75.86
Inpatient-maternity	$60.74	$0.00
Lab/radiology	$8.62	$32.62
Long-term care	$0.00	$0.00
Other	$7.80	$0.41
Outpatient	$3.93	$7.32
Physician and surgery	$62.95	$89.90
OTC medication	$0.91	$1.93
Prescription drugs	$19.58	$66.74
Transportation	$0.07	$0.10
Total Cost	**$268.27**	**$370.57**

Note:
Average Medicaid rates are for the Transitional Assistance to Families with Dependent Children (TAFDC) and TAFDC-related rating categories.
These costs do not include disabled or blind populations enrolled in Medicaid.

G. COVERED EMPLOYEES BY FIRM SIZE AND INDUSTRY

Number of Total Employees by SIC Code By Firm Size for Massachusetts, 2002

[Sum of Full Time and Part Time Employees]

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	21,210	8,616	2,931	3,589	3,801	2,274
10	Mining	1,500	82	90	171	307	850
15	Construction	142,300	44,796	31,562	38,677	19,894	7,371
20	Manufacturing	405,300	14,186	20,670	50,663	99,704	220,078
40	Transportation & Pubic Utilities	140,100	10,367	6,445	13,029	20,735	89,524
50	Wholesale Trade	163,500	19,097	19,424	28,580	27,435	68,964
52	Retail Trade	570,400	66,166	55,899	83,849	73,582	290,904
60	Finance, Insurance & Real Estate	232,900	33,538	12,344	24,920	31,442	130,657
70	Services	1,217,900	203,389	120,572	170,506	248,452	474,981
	TOTAL	**2,895,110**	**400,237**	**269,937**	**413,983**	**525,350**	**1,285,603**

Number of Total Employees in establishments that offer health insurance

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	14,419	3,513	1,840	3,062	3,696	2,308
10	Mining	1,496	38	92	176	317	872
15	Construction	125,767	30,783	27,625	40,013	19,750	7,596
20	Manufacturing	414,204	13,689	20,146	51,870	102,859	225,641
40	Transportation & Pubic Utilities	140,527	8,893	5,875	12,992	21,382	91,384
50	Wholesale Trade	163,850	16,254	19,746	29,529	28,063	70,258
52	Retail Trade	516,764	34,070	37,099	72,604	74,683	298,308
60	Finance, Insurance & Real Estate	235,626	30,658	12,750	25,740	32,475	134,004
70	Services	1,158,712	150,367	102,144	167,903	253,549	484,749
	TOTAL	**2,771,364**	**288,264**	**227,315**	**403,890**	**536,775**	**1,315,121**

Number of Total Employees Eligible for health insurance at establishments that offer health insurance

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	11,910	3,106	1,403	2,492	3,077	1,832
10	Mining	1,359	32	75	168	282	801
15	Construction	99,668	29,266	19,299	29,881	14,614	6,608
20	Manufacturing	373,324	12,012	15,798	47,222	97,350	200,941
40	Transportation & Pubic Utilities	126,241	7,570	4,805	11,883	20,498	81,484
50	Wholesale Trade	144,098	14,162	14,792	27,279	26,104	61,761
52	Retail Trade	418,577	29,502	27,496	59,878	62,101	239,600
60	Finance, Insurance & Real Estate	214,359	29,001	10,398	24,438	31,222	119,300
70	Services	979,812	136,337	79,041	149,387	219,680	395,366
	TOTAL	**2,369,347**	**260,990**	**173,105**	**352,629**	**474,930**	**1,107,693**

Number of Total Employees Eligible for health insurance that are enrolled in health insurance at establishments that offer health insurance

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	10,344	2,886	1,042	2,125	2,766	1,525
10	Mining	1,339	31	71	157	279	800
15	Construction	84,489	24,509	16,341	25,718	12,278	5,642
20	Manufacturing	348,696	10,132	12,883	39,285	89,156	197,240
40	Transportation & Pubic Utilities	114,836	6,720	3,603	9,686	17,433	77,394
50	Wholesale Trade	129,081	11,854	12,292	23,584	23,317	58,033
52	Retail Trade	332,287	26,568	21,853	47,673	51,661	184,532
60	Finance, Insurance & Real Estate	192,913	24,423	8,363	20,527	28,368	111,233
70	Services	847,415	116,821	62,262	118,924	190,632	358,775
	TOTAL	**2,061,398**	**223,943**	**138,710**	**287,680**	**415,890**	**995,174**

Number of Total Employees Enrolled as Single Premium [60 percent]

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	6,207	1,732	625	1,275	1,660	915
10	Mining	803	19	42	94	168	480
15	Construction	50,693	14,706	9,805	15,431	7,367	3,385
20	Manufacturing	209,218	6,079	7,730	23,571	53,493	118,344
40	Transportation & Pubic Utilities	68,902	4,032	2,162	5,812	10,460	46,436
50	Wholesale Trade	77,448	7,112	7,375	14,151	13,990	34,820
52	Retail Trade	199,372	15,941	13,112	28,604	30,997	110,719
60	Finance, Insurance & Real Estate	115,748	14,654	5,018	12,316	17,021	66,740
70	Services	508,449	70,093	37,357	71,354	114,379	215,265
	TOTAL	**1,236,839**	**134,366**	**83,226**	**172,608**	**249,534**	**597,105**

Number of Total Employees Enrolled as Double Premium [15 percent]

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	1,552	433	156	319	415	229
10	Mining	201	5	11	24	42	120
15	Construction	12,673	3,676	2,451	3,858	1,842	846
20	Manufacturing	52,304	1,520	1,932	5,893	13,373	29,586
40	Transportation & Pubic Utilities	17,225	1,008	540	1,453	2,615	11,609
50	Wholesale Trade	19,362	1,778	1,844	3,538	3,498	8,705
52	Retail Trade	49,843	3,985	3,278	7,151	7,749	27,680
60	Finance, Insurance & Real Estate	28,937	3,663	1,254	3,079	4,255	16,685
70	Services	127,112	17,523	9,339	17,839	28,595	53,816
	TOTAL	**309,210**	**33,592**	**20,807**	**43,152**	**62,384**	**149,276**

Number of Total Employees Enrolled as Family Premium [25 percent]

SIC Code	Description	Total	1-9	10-24	25-99	100-999	1000+
07	Agriculture, fishing forestry	2,586	721	261	531	692	381
10	Mining	335	8	18	39	70	200
15	Construction	21,122	6,127	4,085	6,430	3,069	1,410
20	Manufacturing	87,174	2,533	3,221	9,821	22,289	49,310
40	Transportation & Pubic Utilities	28,709	1,680	901	2,422	4,358	19,348
50	Wholesale Trade	32,270	2,963	3,073	5,896	5,829	14,508
52	Retail Trade	83,072	6,642	5,463	11,918	12,915	46,133
60	Finance, Insurance & Real Estate	48,228	6,106	2,091	5,132	7,092	27,808
70	Services	211,854	29,205	15,566	29,731	47,658	89,694
	TOTAL	**515,350**	**55,986**	**34,678**	**71,920**	**103,973**	**248,794**

Totals taken from http://www.detma.org/lmi/ces-790/samonth/790s200204.htm
This is an employer survey that counts all state employees independent of residence

H. 2002 FPL GUIDELINES

Family Size	200% FPL
1	$17,720
2	$23,880
3	$30,040
4	$36,200
5	$42,360
6	$48,520
7	$54,680
8	$60,840
Each Additional Person	Add $6,160

Source: Division of Health Care Finance and Policy - Annual Income Guidelines (Updated February 14, 2002)

I. MODELS 1A AND 1B: MEDICAID EXPANSION PLAN

Figure 37 - Model 1A
Medicaid Expansion Plan
High Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs:		
Adults 19-64	$	3,779.79
Children 0-18	$	2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Uninsured Individuals in the State						
Uninsured Below 200% FPL						
Uninsured Between 201%-300% FPL						
Uninsured Above 300% FPL						
Trend:		1.04	1.07	1.11	1.15	
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
below 200% FPL		$ 167,019,692	$ 290,413,841	$ 386,457,847	$ 444,426,525	
High risk individuals		$ 40,084,726	$ 69,699,322	$ 92,749,883	$ 106,662,366	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
between 201-300% FPL		$ 89,077,169	$ 169,023,929	$ 232,192,781	$ 279,824,108	
High risk individuals		$ 21,378,521	$ 40,565,743	$ 55,726,267	$ 67,157,786	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
above 300% FPL		$ 93,531,028	$ 150,584,955	$ 200,385,551	$ 230,443,383	
High risk individuals		$ 22,447,447	$ 36,140,389	$ 48,092,532	$ 55,306,412	
Total Cost:		$ 433,538,583	$ 756,428,179	$ 1,015,604,862	$ 1,183,820,579	**$ 3,389,392,203**
Federal Share:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ninsured below 200% FPL		$ 83,509,846	$ 145,206,921	$ 193,228,924	$ 222,213,262	
High risk individuals		$ 20,042,363	$ 34,849,661	$ 46,374,942	$ 53,331,183	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured between 201-300% FPL		$ 44,538,585	$ 84,511,964	$ 116,096,390	$ 139,912,054	
High risk individuals		$ 10,689,260	$ 20,282,871	$ 27,863,134	$ 33,578,893	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
tal Federal Share:		$ 158,780,054	$ 284,851,417	$ 383,563,389	$ 449,035,392	**$ 1,276,230,253**
ividuals' Share:						
below 200% FPL		$ -	$ -	$ -	$ -	
between 201-300% FPL ($50-$100-$150)		$ 1,809,463	$ 3,553,626	$ 5,052,574	$ 6,302,160	
above 300% FPL		$ 52,712,911	$ 84,867,786	$ 112,934,776	$ 129,874,992	
tal Individuals' Share:		$ 54,522,374	$ 88,421,413	$ 117,987,349	$ 136,177,152	**$ 397,108,288**
Employers' Share:						
Uninsured below 200% FPL		$ 36,549,253	$ 63,551,842	$ 84,569,344	$ 97,254,745	
Uninsured between 201-300% FPL		$ 18,088,792	$ 34,230,230	$ 46,890,413	$ 56,343,993	
Uninsured above 300% FPL		$ 40,818,117	$ 65,717,168	$ 87,450,775	$ 100,568,391	
tal Employers' Share:		$ 95,456,162	$ 175,504,241	$ 236,115,647	$ 276,118,769	**$ 783,194,819**
ate Share:		$ 124,779,993	$ 207,651,108	$ 277,938,476	$ 322,489,266	**$ 932,858,842**

Source: LECG base case model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

Figure 38 - Model 1A
Medicaid Expansion Plan
Low Federal Participation
High Expected Enrollment
2002

Expeted Average Annual Costs:	
Adults 19-64	$ 3,779.79
Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ured below 200% FPL	$	167,019,692	$ 290,413,841	$ 386,457,847	$ 444,426,525	
High risk individuals	$	40,084,726	$ 69,699,322	$ 92,749,883	$ 106,662,366	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ured between 201-300% FPL	$	89,077,169	$ 169,023,929	$ 232,192,781	$ 279,824,108	
High risk individuals	$	21,378,521	$ 40,565,743	$ 55,726,267	$ 67,157,786	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ured above 300% FPL	$	93,531,028	$ 150,584,955	$ 200,385,551	$ 230,443,383	
High risk individuals	$	22,447,447	$ 36,140,389	$ 48,092,532	$ 55,306,412	
Total Cost:	$	433,538,583	$ 756,428,179	$ 1,015,604,862	$ 1,183,820,579	**$ 3,389,392,203**
Employers' Share:						
Uninsured below 200% FPL	$	73,098,507	$ 127,103,683	$ 169,138,687	$ 194,509,490	
Uninsured between 201-300% FPL	$	38,985,870	$ 73,975,689	$ 101,622,421	$ 122,468,938	
Uninsured above 300% FPL	$	40,818,117	$ 65,717,168	$ 87,450,775	$ 100,568,391	
otal Employers' Share:	$	152,902,494	$ 175,504,241	$ 236,115,647	$ 276,118,769	**$ 840,641,151**
Federal Share:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
insured Below 200% FPL	$	46,960,593	$ 81,655,079	$ 108,659,580	$ 124,958,517	
High risk individuals	$	20,042,363	$ 34,849,661	$ 46,374,942	$ 53,331,183	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
insured Between 201-300% FPL	$	25,045,650	$ 47,524,120	$ 65,285,180	$ 78,677,585	
High risk individuals	$	10,689,260	$ 20,282,871	$ 27,863,134	$ 33,578,893	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
insured Above 300% FPL	$	-	$ -	$ -	$ -	
High risk individuals	$	-	$ -	$ -	$ -	
otal Federal Share:	$	102,737,866	$ 184,311,731	$ 248,182,835	$ 290,546,178	**$ 825,778,610**
dividuals' Share:						
ured below 200% FPL	$	-	$ -	$ -	$ -	
ured between 201-300% FPL ($50-$100-$150)	$	1,809,463	$ 3,553,626	$ 5,052,574	$ 6,302,160	
ured above 300% FPL	$	52,712,911	$ 84,867,786	$ 112,934,776	$ 129,874,992	
otal Individuals' Share:	$	54,522,374	$ 88,421,413	$ 117,987,349	$ 136,177,152	**$ 397,108,288**
ate Share:	$	123,375,850	$ 308,190,794	$ 413,319,030	$ 480,978,480	**$ 1,325,864,154**
unds Redistributed from UCP	$	123,375,850	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 813,375,850**
g State Obligation:	$	-	$ 78,190,794	$ 183,319,030	$ 250,978,480	**$ 512,488,304**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

Figure 39 - Model 1A
Medicaid Expansion Plan
High Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 3,779.79
Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ured below 200% FPL	$ 120,254,179	$ 193,609,228	$ 257,638,565	$ 296,284,350		
High risk individuals	$ 28,861,003	$ 46,466,215	$ 61,833,256	$ 71,108,244		
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ured Between 201%-300% FPL	$ 74,230,974	$ 129,072,818	$ 171,759,043	$ 197,522,900		
gh risk individuals	17,815,434	30,977,476	$ 41,222,170	$ 47,405,496		
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
ured above 300% FPL	$ 51,961,682	$ 75,292,477	$ 100,192,775	$ 115,221,692		
High risk individuals	$ 12,470,804	$ 18,070,195	$ 24,046,266	$ 27,653,206		
Total Cost	$ 305,594,076	$ 493,488,409	$ 656,692,076	$ 755,195,887	**$**	**2,210,970,447**
Federal Share:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
insured Below 200% FPL	$ 60,127,089	$ 96,804,614	$ 128,819,282	$ 148,142,175		
High risk individuals	$ 14,430,501	$ 23,233,107	$ 30,916,628	$ 35,554,122		
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
insured Between 201%-300% FPL	$ 37,115,487	$ 64,536,409	$ 85,879,522	$ 98,761,450		
High risk individuals	$ 8,907,717	$ 15,488,738	$ 20,611,085	$ 23,702,748		
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
insured Above 300% FPL	$ -	$ -	$ -	$ -		
High risk individuals	$ -	$ -	$ -	$ -		
otal Federal Share:	$ 120,580,795	$ 200,062,868	$ 266,226,517	$ 306,160,495	**$**	**893,030,675**
dividuals' Share:						
ured below 200% FPL	$ -	$ -	$ -	$ -		
ured between 201%-300% FPL ($50-$100-$150)	$ 1,507,886	$ 2,713,678	$ 3,737,520	$ 4,448,583		
ured above 300% FPL	$ 29,284,950	$ 42,433,893	$ 56,467,388	$ 64,937,496		
otal Individuals' Share:	$ 30,792,836	$ 45,147,572	$ 60,204,908	$ 69,386,080	**$**	**205,531,395**
Employers' Share						
Uninsured below 200% FPL	$ 26,315,462	$ 42,367,894	$ 56,379,562	$ 64,836,497		
Uninsured between 201%-300% FPL	$ 15,073,993	$ 26,139,449	$ 34,686,059	$ 39,772,230		
Uninsured above 300% FPL	$ 22,676,732	$ 32,858,584	$ 43,725,387	$ 50,284,195		
yers' Share	$ 64,066,187	$ 123,094,819	$ 163,705,956	$ 188,145,112	**$**	**539,012,075**
ate Share	$ 90,154,257	$ 125,183,149	$ 166,554,694	$ 191,504,201	**$**	**573,396,301**
unds Redistributed from UCP	$ 90,154,257	$ 125,183,149	$ 166,554,694	$ 191,504,201	**$**	**573,396,301**
g State Obligation:	$ -	$ -			**$**	**-**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding which is now about $460 million annually.

Figure 40 - Model 1A
Medicaid Expansion Plan
Low Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 3,779.79
Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ured below 200% FPL	$	120,254,179	$ 193,609,228	$ 257,638,565	$ 296,284,350	
High risk individuals	$	28,861,003	$ 46,466,215	$ 61,833,256	$ 71,108,244	
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ured between 201%-300% FPL	$	74,230,974	$ 129,072,818	$ 171,759,043	$ 197,522,900	
High risk individuals	$	17,815,434	$ 30,977,476	$ 41,222,170	$ 47,405,496	
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
ured above 300% FPL	$	51,961,682	$ 75,292,477	$ 100,192,775	$ 115,221,692	
High risk individuals	$	12,470,804	$ 18,070,195	$ 24,046,266	$ 27,653,206	
Total Cost:	$	305,594,076	$ 493,488,409	$ 656,692,076	$ 755,195,887	**$ 2,210,970,447**
ployers' Share						
ured below 200% FPL	$	52,630,925	$ 84,735,789	$ 112,759,125	$ 129,672,994	
ured between 201%-300% FPL	$	32,488,225	$ 56,490,526	$ 75,172,750	$ 86,448,662	
ured above 300% FPL	$	22,676,732	$ 32,858,584	$ 43,725,387	$ 50,284,195	
otal Employers' Share	$	107,795,882	$ 123,094,819	$ 163,705,956	$ 188,145,112	**$ 582,741,769**
Federal Share:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
insured Below 200% FPL	$	33,811,627	$ 54,436,719	$ 72,439,720	$ 83,305,678	
High risk individuals	$	14,430,501	$ 23,233,107	$ 30,916,628	$ 35,554,122	
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
insured Between 201%-300% FPL	$	20,871,375	$ 36,291,146	$ 48,293,147	$ 55,537,119	
High risk individuals	$	8,907,717	$ 15,488,738	$ 20,611,085	$ 23,702,748	
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
insured Above 300% FPL	$	-	$ -	$ -	$ -	
High risk individuals	$	-	$ -	$ -	$ -	
otal Federal Share:	$	78,021,220	$ 129,449,711	$ 172,260,580	$ 198,099,667	**$ 577,831,177**
dividuals' Share:						
ured below 200% FPL	$	-	$ -	$ -	$ -	
ured between 201%-300% FPL ($50-$100-$150)	$	1,507,886	$ 2,713,678	$ 3,737,520	$ 4,448,583	
ured above 300% FPL	$	29,284,950	$ 42,433,893	$ 56,467,388	$ 64,937,496	
otal Individuals' Share:	$	30,792,836	$ 45,147,572	$ 60,204,908	$ 69,386,080	**$ 205,531,395**
ate Share:	$	88,984,138	$ 195,796,307	$ 260,520,631	$ 299,565,029	**$ 844,866,105**
unds Redistributed from UCP	$	88,984,138	$ 195,796,307	$ 230,000,000	$ 230,000,000	**$ 744,780,445**
g State Obligation:	$	-	$ -	$ 30,520,631	$ 69,565,029	**$ 100,085,660**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

Figure 41 - Model 1B
Medicaid Expansion Plan
High Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 5,202.77
Children 0-18	$ 3,766.45
Incremental cost of current Medicaid population:	
Adults 19-64	$ 889.36
Children 0-18	$ 643.84

	Assumed Cumulative Enrollment Over 5 Years				
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		25%	42%	54%	60%	
below 200% FPL	$	229,897,694	$ 399,746,111	$ 531,947,861	$ 611,740,040	
High risk individuals	$	55,175,447	$ 95,939,067	$ 127,667,487	$ 146,817,610	
Incremental ramp-up rate		30%	55%	73%	85%	
between 201%-300% FPL	$	122,612,104	$ 232,656,467	$ 319,606,533	$ 385,169,655	
High risk individuals	$	29,426,905	$ 55,837,552	$ 76,705,568	$ 92,440,717	
Incremental ramp-up rate		18%	28%	36%	40%	
above 300% FPL	$	128,742,709	$ 207,275,761	$ 275,824,817	$ 317,198,539	
High risk individuals	$	30,898,250	$ 49,746,183	$ 66,197,956	$ 76,127,649	
Total Cost:	$	596,753,109	$ 1,041,201,140	$ 1,397,950,221	$ 1,629,494,209	$ 4,665,398,679
Federal Share:						
Incremental ramp-up rate		25%	42%	54%	60%	
d Below 200% FPL		114,948,847	199,873,055	265,973,930	$ 305,870,020	
isk individuals		27,587,723	47,969,533	63,833,743	$ 73,408,805	
Incremental ramp-up rate		30%	55%	73%	85%	
ninsured Between 201%-300% FPL	$	61,306,052	$ 116,328,233	$ 159,803,267	$ 192,584,827	
High risk individuals	$	14,713,452	$ 27,918,776	$ 38,352,784	$ 46,220,359	
Incremental ramp-up rate		18%	28%	36%	40%	
insured Above 300% FPL	$	-	$ -	$ -	$ -	
High risk individuals	$	-	$ -	$ -	$ -	
tal Federal Share:	$	218,556,075	$ 392,089,598	$ 527,963,724	$ 618,084,010	$ 1,756,693,408
ividuals' Share:						
below 200% FPL	$	-	$ -	$ -	$ -	
between 201%-300% FPL ($50-$100-$150	$	1,809,463	$ 3,553,626	$ 5,052,574	$ 6,302,160	
above 300% FPL	$	72,557,771	$ 116,818,012	$ 155,451,397	$ 178,769,107	
tal Individuals' Share:	$	74,367,234	$ 120,371,638	$ 160,503,971	$ 185,071,267	$ 540,314,110
loyers' Share						
below 200% FPL	$	50,308,972	$ 87,477,241	$ 116,407,214	$ 133,868,296	
between 201%-300% FPL	$	25,427,309	$ 48,155,066	$ 66,019,340	$ 79,396,970	
above 300% FPL	$	56,184,937	$ 90,457,749	$ 120,373,419	$ 138,429,432	
tal Employers' Share	$	131,921,218	$ 242,614,586	$ 326,482,308	$ 381,910,485	$ 1,082,928,598
ate Share (Expansion Population):	$	171,908,581	$ 286,125,318	$ 383,000,218	$ 444,428,447	$ 1,285,462,564
ate Share (Current Medicaid Population):	$	343,406,548	$ 355,425,777	$ 367,865,679	$ 380,740,978	$ 1,447,438,983
tal State Share:	$	515,315,129	$ 641,551,095	$ 750,865,898	$ 825,169,425	$ 2,732,901,547
nds Redistributed from UCP	$	230,000,000	$ 230,000,000	$ 230,000,000	$ 230,000,000	$ 920,000,000
ing State Obligation:	$	285,315,129	$ 411,551,095	$ 520,865,898	$ 595,169,425	$ 1,812,901,547

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services. This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium. Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of free care pool dollars at 50% of current funding, which is now about $460 million annually.

Figure 42 - Model 1A
Medicaid Expansion Plan
Low Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 5,202.77
Children 0-18	$ 3,766.45
Incremental cost of current Medicaid population:	
Adults 19-64	$ 889.36
Children 0-18	$ 643.84

	Assumed Cumulative Enrollment Over 5 Years				
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ninsured below 200% FPL		$ 229,897,694	$ 399,746,111	$ 531,947,861	$ 611,740,040	
High risk individuals		$ 55,175,447	$ 95,939,067	$ 127,667,487	$ 146,817,610	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured between 201%-300% FPL		$ 122,612,104	$ 232,656,467	$ 319,606,533	$ 385,169,655	
High risk individuals		$ 29,426,905	$ 55,837,552	$ 76,705,568	$ 92,440,717	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ninsured above 300% FPL		$ 128,742,709	$ 207,275,761	$ 275,824,817	$ 317,198,539	
High risk individuals		$ 30,898,250	$ 49,746,183	$ 66,197,956	$ 76,127,649	
Total Cost:		$ 596,753,109	$ 1,041,201,140	$ 1,397,950,221	$ 1,629,494,209	**$ 4,665,398,679**
Employers' Share:						
ninsured below 200% FPL		$ 100,617,945	$ 174,954,482	$ 232,814,428	$ 267,736,593	
ninsured between 201%-300% FPL		$ 53,662,904	$ 101,825,360	$ 139,880,274	$ 168,574,892	
ninsured above 300% FPL		$ 56,184,937	$ 90,457,749	$ 120,373,419	$ 138,429,432	
al Employers' Share:		$ 210,465,786	$ 242,614,586	$ 326,482,308	$ 381,910,485	**$ 1,161,473,165**
Federal Share:						
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ninsured Below 200% FPL		$ 64,639,875	$ 112,395,815	$ 149,566,716	$ 172,001,723	
High risk individuals		$ 27,587,723	$ 47,969,533	$ 63,833,743	$ 73,408,805	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured Between 201%-300% FPL		$ 34,474,600	$ 65,415,553	$ 89,863,130	$ 108,297,381	
High risk individuals		$ 14,713,452	$ 27,918,776	$ 38,352,784	$ 46,220,359	
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ninsured Above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
al Federal Share:		$ 141,415,651	$ 253,699,677	$ 341,616,373	$ 399,928,268	**$ 1,136,659,969**
iduals' Share:						
ninsured below 200% FPL		$ -	$ -	$ -	$ -	
ninsured between 201%-300% FPL ($50-$100-$150)		$ 1,809,463	$ 3,553,626	$ 5,052,574	$ 6,302,160	
ninsured above 300% FPL		$ 72,557,771	$ 116,818,012	$ 155,451,397	$ 178,769,107	
al Individuals' Share:		$ 74,367,234	$ 120,371,638	$ 160,503,971	$ 185,071,267	**$ 540,314,110**
te Share (Expansion Population):		$ 170,504,438	$ 424,515,239	$ 569,347,569	$ 662,584,189	**$ 1,826,951,435**
te Share (Current Medicaid Population):		$ 343,406,548	$ 355,425,777	$ 367,865,679	$ 380,740,978	**$ 1,447,438,983**
al State Share:		$ 513,910,986	$ 779,941,016	$ 937,213,249	$ 1,043,325,167	**$ 3,274,390,418**
ds Redistributed from UCP		$ 230,000,000	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 920,000,000**
emaining State Obligation:		$ 283,910,986	$ 549,941,016	$ 707,213,249	$ 813,325,167	**$ 2,354,390,418**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services. This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium. Individuals, however, are only responsible for the average premium. State picks up the remainder.

We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

Figure 43 - Model 1B
Medicaid Expansion Plan
High Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 5,202.77
Children 0-18	$ 3,766.45
Incremental cost of current Medicaid population:	
Adults 19-64	$ 889.36
Children 0-18	$ 643.84

	Assumed Cumulative Enrollment Over 5 Years				
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		18%	28%	36%	40%	
ed below 200% FPL	$	165,526,340	$ 266,497,407	$ 354,631,907	$ 407,826,693	
High risk individuals	$	39,726,322	$ 63,959,378	$ 85,111,658	$ 97,878,406	
Incremental ramp-up rate		25%	42%	54%	60%	
ed between 201%-300% FPL	$	102,176,753	$ 177,664,938	$ 236,421,271	$ 271,884,462	
High risk individuals	$	24,522,421	$ 42,639,585	$ 56,741,105	$ 65,252,271	
Incremental ramp-up rate		10%	14%	18%	20%	
ed Above 300% FPL	$	71,523,727	$ 103,637,881	$ 137,912,408	$ 158,599,270	
High risk individuals	$	17,165,695	$ 24,873,091	$ 33,098,978	$ 38,063,825	
Total Cost:	$	420,641,257	$ 679,272,280	$ 903,917,327	$ 1,039,504,927	**$ 3,043,335,792**
Federal Share:						
Incremental ramp-up rate		18%	28%	36%	40%	
ninsured Below 200% FPL	$	82,763,170	$ 133,248,704	$ 177,315,954	$ 203,913,347	
High risk individuals	$	19,863,161	$ 31,979,689	$ 42,555,829	$ 48,939,203	
Incremental ramp-up rate		25%	42%	54%	60%	
ninsured Between 201%-300% FPL	$	51,088,377	$ 88,832,469	$ 118,210,636	$ 135,942,231	
High risk individuals	$	12,261,210	$ 21,319,793	$ 28,370,553	$ 32,626,135	
Incremental ramp-up rate		10%	14%	18%	20%	
nsured Above 300% FPL	$	-	$ -	$ -	$ -	
High risk individuals	$	-	$ -	$ -	$ -	
tal Federal Share:	$	165,975,918	$ 275,380,654	$ 366,452,971	$ 421,420,916	**$ 1,229,230,459**
dividuals' Share:						
ed below 200% FPL	$	-	$ -	$ -	$ -	
ed between 201%-300% FPL ($50-$100-$150)	$	1,507,886	$ 2,713,678	$ 3,737,520	$ 4,448,583	
ed above 300% FPL	$	40,309,873	$ 58,409,006	$ 77,725,699	$ 89,384,553	
otal Individuals' Share:	$	41,817,759	$ 61,122,684	$ 81,463,219	$ 93,833,137	**$ 278,236,799**
ployers' Share:						
ed below 200% FPL	$	36,222,460	$ 58,318,161	$ 77,604,809	$ 89,245,531	
ed between 201%-300% FPL	$	21,189,424	$ 36,772,959	$ 48,836,224	$ 56,044,920	
ed above 300% FPL	$	31,213,854	$ 45,228,875	$ 60,186,710	$ 69,214,716	
otal Employers' Share:	$	88,625,738	$ 170,229,176	$ 226,428,318	$ 260,275,827	**$ 745,559,059**
e Share (Expansion Population):	$	124,221,843	$ 172,539,766	$ 229,572,820	$ 263,975,046	**$ 790,309,475**
e Share (Current Medicaid Population):	$	343,406,548	$ 355,425,777	$ 367,865,679	$ 380,740,978	**$ 1,447,438,983**
otal State Share:	$	467,628,391	$ 527,965,543	$ 597,438,500	$ 644,716,024	**$ 2,237,748,458**
unds Redistributed from UCP	$	230,000,000	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 920,000,000**
State Obligation:	$	237,628,391	$ 297,965,543	$ 367,438,500	$ 414,716,024	**$ 1,317,748,458**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.

We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services. This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium. Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of free care pool dollars at 50% of current funding, which is now about $460 million annually.

Figure 44 - Model 1B
Medicaid Expansion Plan
Low Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs:	
Adults 19-64	$ 5,202.77
Children 0-18	$ 3,766.45
Incremental cost of current Medicaid population:	
Adults 19-64	$ 889.36
Children 0-18	$ 643.84

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Medicaid Expansion Plan:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
ninsured below 200% FPL		$ 165,526,340	$ 266,497,407	$ 354,631,907	$ 407,826,693	
High risk individuals		$ 39,726,322	$ 63,959,378	$ 85,111,658	$ 97,878,406	
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
ninsured between 201%-300% FPL		$ 102,176,753	$ 177,664,938	$ 236,421,271	$ 271,884,462	
High risk individuals		$ 24,522,421	$ 42,639,585	$ 56,741,105	$ 65,252,271	
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
ninsured above 300% FPL		$ 71,523,727	$ 103,637,881	$ 137,912,408	$ 158,599,270	
High risk individuals		$ 17,165,695	$ 24,873,091	$ 33,098,978	$ 38,063,825	
Total Cost:		$ 420,641,257	$ 679,272,280	$ 903,917,327	$1,039,504,927	**$ 3,043,335,792**
oyers' Share						
ninsured below 200% FPL		$ 72,444,920	$ 116,636,321	$ 155,209,619	$ 178,491,062	
ninsured between 201%-300% FPL		$ 44,719,086	$ 77,757,548	$ 103,473,079	$ 118,994,041	
ninsured above 300% FPL		$ 31,213,854	$ 45,228,875	$ 60,186,710	$ 69,214,716	
otal Employers' Share:		$ 148,377,861	$ 170,229,176	$ 226,428,318	$ 260,275,827	**$ 805,311,181**
Federal Share:						
Incremental ramp-up rate		**18%**	**28%**	**36%**	**40%**	
nsured Below 200% FPL		$ 46,540,710	$ 74,930,543	$ 99,711,144	$ 114,667,816	
High risk individuals		$ 19,863,161	$ 31,979,689	$ 42,555,829	$ 48,939,203	
Incremental ramp-up rate		**25%**	**42%**	**54%**	**60%**	
nsured Between 201%-300% FPL		$ 28,728,833	$ 49,953,695	$ 66,474,096	$ 76,445,210	
High risk individuals		$ 12,261,210	$ 21,319,793	$ 28,370,553	$ 32,626,135	
Incremental ramp-up rate		**10%**	**14%**	**18%**	**20%**	
nsured Above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
tal Federal Share:		$ 107,393,914	$ 178,183,720	$ 237,111,621	$ 272,678,365	**$ 795,367,620**
ndividuals' Share:						
ninsured below 200% FPL		$ -	$ -	$ -	$ -	
ninsured between 201%-300% FPL ($50-$100-$150)		$ 1,507,886	$ 2,713,678	$ 3,737,520	$ 4,448,583	
ninsured above 300% FPL		$ 40,309,873	$ 58,409,006	$ 77,725,699	$ 89,384,553	
otal Individuals' Share:		$ 41,817,759	$ 61,122,684	$ 81,463,219	$ 93,833,137	**$ 278,236,799**
te Share (Expansion Population):		$ 123,051,723	$ 269,736,701	$ 358,914,170	$ 412,717,598	**$ 1,164,420,191**
te Share (Current Medicaid Population):		$ 343,406,548	$ 355,425,777	$ 367,865,679	$ 380,740,978	**$ 1,447,438,983**
tal State Share:		$ 466,458,271	$ 625,162,478	$ 726,779,849	$ 793,458,576	**$ 2,611,859,174**
unds Redistributed from UCP		$ 230,000,000	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 920,000,000**
maining State Obligation:		$ 236,458,271	$ 395,162,478	$ 496,779,849	$ 563,458,576	**$ 1,691,859,174**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
We assume that the expanded population will cost 85% of the current Medicaid population due to lower expected utilization of services. This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost 9 times the average premium. Individuals, however, are only responsible for the average premium. The State picks up the remainder.

We place an arbitrary cap on redistribution of free care pool dollars at 50% of current funding, which is now about $460 million annually.

J. MODELS 2A AND 2B: BASIC BENEFIT PLAN WITH MANDATE

Figure 45 - Model 2A
Mandated Basic Benefit Package
High Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

Assumed Cumulative Enrollment Over 5 Years

Total Expected Cost of Basic Benefit Plan:

	1	2	3	4	5	Total
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 631,788,682	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 219,101,059	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured between 201%-300% FPL		$ 48,649,202	$ 92,311,860	$ 126,811,320	$ 152,825,012	
High risk individuals		$ 11,675,808	$ 22,154,846	$ 30,434,717	$ 36,678,003	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 267,443,771	
High risk individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 64,186,505	
Total Cost:		$ 557,794,827	$ 899,058,005	$ 1,168,702,494	$ 1,372,023,032	**$ 3,997,578,358**
Federal Share:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured below 200% FPL		$ 130,818,256	$ 208,388,220	$ 269,679,080	$ 315,894,341	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 109,550,529	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured between 201%-300% FPL		$ 24,324,601	$ 46,155,930	$ 63,405,660	$ 76,412,506	
High risk individuals		$ 5,837,904	$ 11,077,423	$ 15,217,358	$ 18,339,001	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
Uninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
Total Federal Share:		$ 226,113,030	$ 349,370,634	$ 446,760,965	$ 520,196,378	**$ 1,542,441,006**
Individuals' Share						
Uninsured below 200% FPL		$ -	$ -	$ -	$ -	
Uninsured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 28,870,884	
Uninsured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 150,393,260	
Total Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 179,264,145	**$ 493,361,860**
Employers' Share						
Uninsured below 200% FPL		$ 57,254,441	$ 91,204,022	$ 118,028,825	$ 138,255,581	
Uninsured between 201%-300% FPL		$ 3,514,138	$ 6,668,076	$ 9,160,118	$ 11,039,197	
Uninsured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 117,050,511	
Total Employers' Share:		$ 98,029,586	$ 168,574,860	$ 224,315,254	$ 266,345,288	**$ 757,264,988**
Total State Share:		$ 176,586,569	$ 272,830,454	$ 348,876,260	$ 406,217,221	**$ 1,204,510,504**
Funds Redistributed from UCP		$ 176,586,569	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 866,586,569**
Remaining State Obligation:		$ -	$ 42,830,454	$ 118,876,260	$ 176,217,221	**$ 337,923,935**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 46 - Model 2B
Mandated Basic Benefit Package
High Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 631,788,682	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 219,101,059	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured between 201%-300% FPL		$ 116,282,894	$ 185,233,973	$ 239,714,738	$ 280,794,970	
High risk individuals		$ 57,895,350	$ 74,443,609	$ 87,518,993	$ 97,378,248	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 267,443,771	
High risk individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 64,186,505	
Total Cost:		$ 671,648,061	$ 1,044,268,881	$ 1,338,690,188	$ 1,560,693,235	**$ 4,615,300,365**
Federal Share:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured below 200% FPL		$ 130,818,256	$ 208,388,220	$ 269,679,080	$ 315,894,341	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 109,550,529	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured between 201%-300% FPL		$ 58,141,447	$ 92,616,987	$ 119,857,369	$ 140,397,485	
High risk individuals		$ 28,947,675	$ 37,221,805	$ 43,759,496	$ 48,689,124	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
al Federal Share:		$ 283,039,647	$ 421,976,072	$ 531,754,812	$ 614,531,479	**$ 1,851,302,010**
iduals' Share						
ninsured below 200% FPL		$ -	$ -	$ -	$ -	
ninsured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 28,870,884	
ninsured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 150,393,260	
al Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 179,264,145	**$ 493,361,860**
ployers' Share						
ninsured below 200% FPL		$ 57,254,441	$ 91,204,022	$ 118,028,825	$ 138,255,581	
ninsured between 201%-300% FPL		$ 18,314,554	$ 27,002,408	$ 33,866,998	$ 39,043,119	
ninsured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 117,050,511	
al Employers' Share:		$ 112,830,002	$ 188,909,191	$ 249,022,135	$ 294,349,210	**$ 845,110,539**
al State Share:		$ 218,712,770	$ 325,101,560	$ 409,163,226	$ 472,548,401	**$ 1,425,525,957**
Redistributed from UCP		$ 218,712,770	$ 230,000,000	$ 230,000,000	230,000,000	**$ 908,712,770**
ate Obligation:		$ -	$ 95,101,560	$ 179,163,226	$ 242,548,401	**$ 516,813,187**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 47 - Model 2A
Mandated Basic Benefit Package
High Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
insured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 727,613,981	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 242,099,131	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
insured between 201%-300% FPL		$ 48,649,202	$ 92,311,860	$ 126,811,320	$ 179,794,132	
High risk individuals		$ 11,675,808	$ 22,154,846	$ 30,434,717	$ 43,150,592	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
insured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 314,639,731	
High Risk Individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 75,513,535	
Total Cost:		$ 557,794,827	$ 899,058,005	$ 1,168,702,494	$ 1,582,811,102	**$ 4,208,366,428**
Federal Share:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured below 200% FPL		$ 130,818,256	$ 208,388,220	$ 269,679,080	$ 363,806,991	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 121,049,565	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured between 201%-300% FPL		$ 24,324,601	$ 46,155,930	$ 63,405,660	$ 89,897,066	
High risk individuals		$ 5,837,904	$ 11,077,423	$ 15,217,358	$ 21,575,296	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
otal Federal Share:		$ 226,113,030	$ 349,370,634	$ 446,760,965	$ 596,328,918	**$ 1,618,573,546**
dividuals' Share						
insured below 200% FPL						
insured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 33,965,746	
insured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 176,933,248	
otal Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 210,898,994	**$ 524,996,709**
mployers' Share						
insured below 200% FPL		$ 57,254,441	$ 91,204,022	$ 118,028,825	$ 159,225,223	
insured between 201%-300% FPL		$ 3,514,138	$ 6,668,076	$ 9,160,118	$ 12,987,290	
insured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 137,706,483	
otal Employers' Share:		$ 98,029,586	$ 168,574,860	$ 224,315,254	$ 309,918,996	**$ 800,838,696**
otal State Share:		$ 176,586,569	$ 272,830,454	$ 348,876,260	$ 465,664,194	**$ 1,263,957,477**
nds Redistributed from UCP		$ 176,586,569	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 866,586,569**
emaining State Obligation:		$ -	$ 42,830,454	$ 118,876,260	$ 235,664,194	**$ 397,370,908**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UPC dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 48 - Model 2B
Mandated Basic Benefit Package
High Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
nsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 727,613,981	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 242,099,131	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
nsured between 201%-300% FPL		$ 116,282,894	$ 185,233,973	$ 239,714,738	$ 323,383,992	
High risk individuals		$ 57,895,350	$ 74,443,609	$ 87,518,993	$ 107,599,614	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
nsured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 314,639,731	
High Risk Individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 75,513,535	
Total Cost:		$ 671,648,061	$ 1,044,268,881	$ 1,338,690,188	$ 1,790,849,983	**$ 4,845,457,113**
Federal Share:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured below 200% FPL		$ 130,818,256	$ 208,388,220	$ 269,679,080	$ 363,806,991	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 121,049,565	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured between 201%-300% FPL		$ 58,141,447	$ 92,616,987	$ 119,857,369	$ 161,691,996	
High risk individuals		$ 28,947,675	$ 37,221,805	$ 43,759,496	$ 53,799,807	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
tal Federal Share:		$ 283,039,647	$ 421,976,072	$ 531,754,812	$ 700,348,359	**$ 1,937,118,889**
ividuals' Share						
nsured below 200% FPL						
nsured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 33,965,746	
nsured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 176,933,248	
otal Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 210,898,994	**$ 524,996,709**
ployers' Share						
nsured below 200% FPL		$ 57,254,441	$ 91,204,022	$ 118,028,825	$ 159,225,223	
nsured between 201%-300% FPL		$ 18,314,554	$ 27,002,408	$ 33,866,998	$ 44,409,347	
nsured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 137,706,483	
otal Employers' Share:		$ 112,830,002	$ 188,909,191	$ 249,022,135	$ 341,341,052	**$ 892,102,381**
otal State Share:		$ 218,712,770	$ 325,101,560	$ 409,163,226	$ 538,261,578	**$ 1,491,239,134**
unds Redistributed from UCP		$ 218,712,770	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 908,712,770**
State Obligation:		$ -	$ 95,101,560	$ 179,163,226	$ 308,261,578	**$ 582,526,365**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UPC dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 49 - Model 2A
Mandated Basic Benefit Package
Low Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 727,613,981	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 242,099,131	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured between 201%-300% FPL		48,649,202	92,311,860	126,811,320	179,794,132	
High risk individuals		$ 11,675,808	$ 22,154,846	$ 30,434,717	$ 43,150,592	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 314,639,731	
High risk individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 75,513,535	
Total Cost:		$ 557,794,827	$ 899,058,005	$ 1,168,702,494	$ 1,582,811,102	**$ 4,208,366,428**
mployers' Share						
ninsured below 200% FPL		$ 114,508,882	$ 182,408,044	$ 236,057,649	$ 318,450,445	
ninsured between 201%-300% FPL		$ 21,292,004	$ 40,401,578	$ 55,500,750	$ 78,689,419	
ninsured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 137,706,483	
l Employers' Share:		$ 173,061,894	$ 293,512,384	$ 388,684,711	$ 534,846,347	**$ 1,390,105,336**
Federal Share:						
ow 200% FPL		$ 73,563,815	$ 117,184,198	$ 151,650,255	$ 204,581,768	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 121,049,565	
ween 201%-300% FPL		$ 13,678,599	$ 25,955,141	$ 35,655,285	$ 50,552,356	
High risk individuals		$ 5,837,904	$ 11,077,423	$ 15,217,358	$ 21,575,296	
ve 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
l Federal Share:		$ 158,212,587	$ 237,965,823	$ 300,981,765	$ 397,758,986	**$ 1,094,919,160**
viduals' Share						
ninsured below 200% FPL						
ninsured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 33,965,746	
ninsured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 176,933,248	
l Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 210,898,994	**$ 524,996,709**
l State Share:		$ 169,454,704	$ 259,297,741	$ 330,286,003	$ 439,306,775	**$ 1,198,345,223**
Redistributed from UCP		$ 169,454,704	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 859,454,704**
ining State Obligation:		$ -	$ 29,297,741	$ 100,286,003	$ 209,306,775	**$ 338,890,519**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 50 - Model 2B
Mandated Basic Benefit Package
Low Federal Participation
High Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years				
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 727,613,981	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 242,099,131	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
ninsured between 201%-300% FPL		$ 116,282,894	$ 185,233,973	$ 239,714,738	$ 323,383,992	
High risk individuals		$ 57,895,350	$ 74,443,609	$ 87,518,993	$ 107,599,614	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**100%**	
red above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 314,639,731	
gh risk individuals		20,432,665	38,770,981	$ 53,260,754	$ 75,513,535	
Total Cost:		$ 671,648,061	$ 1,044,268,881	$ 1,338,690,188	$ 1,790,849,983	**$ 4,845,457,113**
loyers' Share						
ninsured below 200% FPL		$ 114,508,882	$ 182,408,044	$ 236,057,649	$ 318,450,445	
red between 201%-300% FPL		$ 50,892,836	$ 81,070,242	$ 104,914,511	$ 141,533,531	
red above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 137,706,483	
tal Employers' Share:		$ 202,662,726	$ 334,181,047	$ 438,098,472	$ 597,690,460	**$ 1,572,632,705**
Federal Share:						
nsured below 200% FPL		$ 73,563,815	$ 117,184,198	$ 151,650,255	$ 204,581,768	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 121,049,565	
ninsured between 201%-300% FPL		$ 32,695,029	$ 52,081,866	$ 67,400,113	$ 90,925,230	
High risk individuals		$ 28,947,675	$ 37,221,805	$ 43,759,496	$ 53,799,807	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
tal Federal Share:		$ 200,338,787	$ 290,236,929	$ 361,268,731	$ 470,356,370	**$ 1,322,200,818**
ndividuals' Share						
red below 200% FPL						
red between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 33,965,746	
red above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 176,933,248	
otal Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 210,898,994	**$ 524,996,709**
tal State Share:		$ 211,580,905	$ 311,568,847	$ 390,572,969	$ 511,904,159	**$ 1,425,626,881**
nds Redistributed from UCP		$ 211,580,905	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 901,580,905**
ing State Obligation:		$ -	$ 81,568,847	$ 160,572,969	$ 281,904,159	**$ 524,045,976**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 51 - Model 2A
Mandated Basic Benefit Package
Low Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 631,788,682	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 219,101,059	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured between 201%-300% FPL		$ 48,649,202	$ 92,311,860	$ 126,811,320	$ 152,825,012	
High risk individuals		$ 11,675,808	$ 22,154,846	$ 30,434,717	$ 36,678,003	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
ninsured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 267,443,771	
High risk individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 64,186,505	
Total Cost:		$ 557,794,827	$ 899,058,005	$ 1,168,702,494	$ 1,372,023,032	**$ 3,997,578,358**
ployers' Share						
ninsured below 200% FPL		$ 114,508,882	$ 182,408,044	$ 236,057,649	$ 276,511,162	
ninsured between 201%-300% FPL		$ 21,292,004	$ 40,401,578	$ 55,500,750	$ 66,886,006	
ninsured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 117,050,511	
otal Employers' Share:		$ 173,061,894	$ 293,512,384	$ 388,684,711	$ 460,447,678	**$ 1,315,706,666**
Federal Share:						
insured below 200% FPL		$ 73,563,815	117,184,198	$ 151,650,255	$ 177,638,760	
High risk individuals		$ 65,132,269	83,749,060	$ 98,458,867	$ 109,550,529	
Uninsured between 201%-300% FPL		$ 13,678,599	25,955,141	$ 35,655,285	$ 42,969,503	
High risk individuals		$ 5,837,904	11,077,423	$ 15,217,358	$ 18,339,001	
Uninsured above 300% FPL		$ -	-	$ -	$ -	
High risk individuals		$ -	-	$ -	$ -	
Total Federal Share:		$ 158,212,587	237,965,823	$ 300,981,765	$ 348,497,794	**$ 1,045,657,969**
Individuals' Share						
ninsured below 200% FPL						
ninsured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 28,870,884	
ninsured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 150,393,260	
tal Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 179,264,145	**$ 493,361,860**
otal State Share:		$ 169,454,704	$ 259,297,741	$ 330,286,003	$ 383,813,415	**$ 1,142,851,863**
unds Redistributed from UCP		$ 169,454,704	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 859,454,704**
maining State Obligation:		$ -	$ 29,297,741	$ 100,286,003	$ 153,813,415	**$ 283,397,159**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

Figure 52 - Model 2B
Mandated Basic Benefit Package
Low Federal Participation
Low Expected Enrollment
2002

Expected Average Annual Costs of Basic Benefit Plan:	Single	$ 3,213.84
	Double	$ 6,194.04
	Family	$ 9,600.00
Medicaid Pricing:	Adults 19-64	$ 3,779.79
	Children 0-18	$ 2,736.31

	Assumed Cumulative Enrollment Over 5 Years					
	1	2	3	4	5	Total
Total Expected Cost of Basic Benefit Plan:						
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
sured below 200% FPL		$ 261,636,511	$ 416,776,440	$ 539,358,159	$ 631,788,682	
High risk individuals		$ 130,264,538	$ 167,498,121	$ 196,917,734	$ 219,101,059	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
sured between 201%-300% FPL		$ 116,282,894	$ 185,233,973	$ 239,714,738	$ 280,794,970	
High risk individuals		$ 57,895,350	$ 74,443,609	$ 87,518,993	$ 97,378,248	
Incremental ramp-up rate		**30%**	**55%**	**73%**	**85%**	
sured above 300% FPL		$ 85,136,103	$ 161,545,755	$ 221,919,810	$ 267,443,771	
High risk individuals		$ 20,432,665	$ 38,770,981	$ 53,260,754	$ 64,186,505	
Total Cost:		$ 671,648,061	$ 1,044,268,881	$ 1,338,690,188	$ 1,560,693,235	**$ 4,615,300,365**
oyers' Share						
sured below 200% FPL		$ 114,508,882	$ 182,408,044	$ 236,057,649	$ 276,511,162	
sured between 201%-300% FPL		$ 50,892,836	$ 81,070,242	$ 104,914,511	$ 122,893,850	
sured above 300% FPL		$ 37,261,007	$ 70,702,762	$ 97,126,312	$ 117,050,511	
l Employers' Share:		$ 202,662,726	$ 334,181,047	$ 438,098,472	$ 516,455,522	**$ 1,491,397,767**
Federal Share:						
ninsured below 200% FPL		$ 73,563,815	$ 117,184,198	$ 151,650,255	$ 177,638,760	
High risk individuals		$ 65,132,269	$ 83,749,060	$ 98,458,867	$ 109,550,529	
ninsured between 201%-300% FPL		$ 32,695,029	$ 52,081,866	$ 67,400,113	$ 78,950,560	
High risk individuals		$ 28,947,675	$ 37,221,805	$ 43,759,496	$ 48,689,124	
ninsured above 300% FPL		$ -	$ -	$ -	$ -	
High risk individuals		$ -	$ -	$ -	$ -	
l Federal Share:		$ 200,338,787	$ 290,236,929	$ 361,268,731	$ 414,828,974	**$ 1,266,673,422**
ndividuals' Share						
sured below 200% FPL						
sured between 201%-300% FPL ($50-$100-$150)		$ 9,190,547	$ 17,439,063	$ 23,956,517	$ 28,870,884	
sured above 300% FPL		$ 47,875,096	$ 90,842,994	$ 124,793,498	$ 150,393,260	
l Individuals' Share:		$ 57,065,643	$ 108,282,057	$ 148,750,015	$ 179,264,145	**$ 493,361,860**
l State Share:		$ 211,580,905	$ 311,568,847	$ 390,572,969	$ 450,144,594	**$ 1,363,867,316**
ibuted from UCP		$ 211,580,905	$ 230,000,000	$ 230,000,000	$ 230,000,000	**$ 901,580,905**
aining State Obligation:		$ -	$ 81,568,847	$ 160,572,969	$ 220,144,594	**$ 462,286,411**

Source: LECG Base Case Model

Notes: Income splits are based on estimates from DHCFP.
This assumption is built into the expected average annual costs.

High risk (chronically ill) individuals are assumed to comprise 3% of uninsured population and cost nine times the average premium.
Individuals, however, are only responsible for the average premium. The State picks up the remainder.
We place an arbitrary cap on redistribution of UCP dollars at 50% of current funding, which is now about $460 million annually.

The model is priced using mid-range commercial rates in Massachusetts.

K. ESTIMATED SINGLE PAYER ADMINISTRATIVE COST SAVINGS

NETWORK ADMINISTRATION ADMINISTRATIVE COST INSURERS, MANAGED CARE ORGANIZATIONS, ADMINISTRATORS				
Costs	Adminstrative Cost of Single Payer System	Efficient Size Est. Costs	Single Payer Est. Costs	Savings(+)/ Increase(-)
FINANCE AND ADMINISTRATION				
Executive Director	-15%	$ 159,334.00	$ 135,433.90	$ 23,900.10
Chief Financial Officer	-15%	$ 125,000.00	$ 106,250.00	$ 18,750.00
Analysts	-5%	$ 75,000.00	$ 71,250.00	$ 3,750.00
Administrative Support	0%	$ 44,903.00	$ 44,903.00	$ -
MARKETING DEPARTMENT				
Marketing Director	30%	$ 93,230.00	$ 121,199.00	$ (27,969.00)
Account Executives	-70%	$ 284,431.00	$ 85,329.30	$ 199,101.70
Administrative Support	-35%	$ 44,903.00	$ 29,186.95	$ 15,716.05
Broker/Sales Commissions	-100%	$ 250,000.00	$ -	$ 250,000.00
Sales Brochures	30%	$ 125,000.00	$ 162,500.00	$ (37,500.00)
MEMBER SERVICES				
Customer Service Staff	30%	$ 590,984.00	$ 768,279.20	$ (177,295.20)
Administrative Support	30%	$ 273,765.00	$ 355,894.50	$ (82,129.50)
Member Cards				$ -
Group Enrollment Materials	-30%	$ 55,000.00	$ 38,500.00	$ 16,500.00
Member Newsletters	0%	$ 45,000.00	$ 45,000.00	$ -
Membership Change Forms		$ 45,000.00	$ 45,000.00	$ -
Member Handbook	-20%	$ 75,000.00	$ 60,000.00	$ 15,000.00
Provider Network Listing	0%	$ 25,000.00	$ 25,000.00	$ -
Product Specific Materials	-100%	$ 125,000.00	$ -	$ 125,000.00
INFORMATION TECHNOLOGY				
Systems Manager	-20%	$ 108,637.00	$ 86,909.60	$ 21,727.40
Systems Analyst	-20%	$ 77,428.00	$ 61,942.40	$ 15,485.60
Programmer	-20%	$ 57,676.00	$ 46,140.80	$ 11,535.20
Webmaster	0%	$ 22,000.00	$ 22,000.00	$ -
Software License Fees				$ -
General Office Software	0%	$ 5,000.00	$ 5,000.00	$ -
Claims Payment Software	-20%	$ 15,000.00	$ 12,000.00	$ 3,000.00
Accounting Software	0%	$ 10,000.00	$ 10,000.00	$ -
Underwriting Software	-100%	$ 2,500.00	$ -	$ 2,500.00
Medical Management Software	0%	$ 2,500.00	$ 2,500.00	$ -
CLAIMS DEPARTMENT			$ -	$ -
Claims Manager	-50%	$ 123,253.00	$ 61,626.50	$ 61,626.50
Claims Adjudicator	-50%	$ 1,659,179.00	$ 829,589.50	$ 829,589.50
Claims Forms	-50%	$ 1,250.00	$ 625.00	$ 625.00
HEALTH SERVICES DEPARTMENT			$ -	$ -
Medical Director	-10%	$ 108,637.00	$ 97,773.30	$ 10,863.70
UR Coordinator	0%	$ 922,790.00	$ 922,790.00	$ -
Administrative Support	-25%	$ 44,903.00	$ 33,677.25	$ 11,225.75
Grievance Counselor	30%	$ 66,500.00	$ 86,450.00	$ (19,950.00)
Medical Authorization Forms	-25%	$ 1,250.00	$ 937.50	$ 312.50
Disease Management	0%	$ 55,600.00	$ 55,600.00	$ -
PROVIDER RELATIONS			$ -	$ -
Provider Relations Staff	-35%	$ 165,516.00	$ 107,585.40	$ 57,930.60
Provider Materials	-35%	$ 3,500.00	$ 2,275.00	$ 1,225.00
Contracting Manager	-40%	$ 55,600.00	$ 33,360.00	$ 22,240.00
Contracting Staff	-40%	$ 24,000.00	$ 14,400.00	$ 9,600.00

NETWORK ADMINISTRATION ADMINISTRATIVE COST (Con't.)

INSURERS, MANAGED CARE ORGANIZATIONS, ADMINISTRATORS

Costs	Adminstrative Cost of Single Payer System	Efficient Size Est. Costs	Single Payer Est. Costs	Savings(+)/ Increase(-)
REGULATORY COMPLIANCE DEPARTMENT				
Insurance Commission	-30%	$ 12,500.00	$ 8,750.00	$ 3,750.00
Public Health	0%	$ 12,500.00	$ 12,500.00	$ -
Medicaid	-80%	$ 12,500.00	$ 2,500.00	$ 10,000.00
Medicare	-90%	$ 12,500.00	$ 1,250.00	$ 11,250.00
Licensure Agencies (providers and hospitals)	0%	$ 6,250.00	$ 6,250.00	$ -
HIPAA	-30%	$ 6,250.00	$ 4,375.00	$ 1,875.00
Per Employee Expenses				$ -
Occupancy	0%	$ 587,419.00	$ 587,419.00	$ -
Telephone	0%	$ 219,986.00	$ 219,986.00	$ -
Supplies	0%	$ 153,066.00	$ 153,066.00	$ -
Equipment (PCs, etc.)	0%	$ 398,761.00	$ 398,761.00	$ -
Dues, Education, Travel	0%	$ 378,670.00	$ 378,670.00	$ -
Per Member Per Month Expenses			$ -	$ -
Excess Education, Communication	0%	$ 1,250,000.00	$ 1,250,000.00	$ -
Fixed			$ -	$ -
Advertising	30%	$ 560,000.00	$ 728,000.00	$ (168,000.00)
System Development (amortized)	-25%	$ 255,256.00	$ 191,442.00	$ 63,814.00
Legal Fees	-25%	$ 125,000.00	$ 93,750.00	$ 31,250.00
Audit Fees	20%	$ 225,000.00	$ 270,000.00	$ (45,000.00)
Actuary Fees	50%	$ 225,000.00	$ 337,500.00	$ (112,500.00)
Banking Fees	0%	$ 25,000.00	$ 25,000.00	$ -
Outside Consultant Fees	-15%	$ 125,000.00	$ 106,250.00	$ 18,750.00
Provider Credentialing Fees	0%	$ 55,000.00	$ 55,000.00	$ -
PBM (Pharmacy Benefits Mgmt.) Expense	-50%	$ 125,000.00	$ 62,500.00	$ 62,500.00
Total Non-HR		$ 125,000.00	$ 125,000.00	$ -
		$ 45,000.00	$ 45,000.00	$ -
Summary		$ 36,600.00	$ 36,600.00	$ -
Total HR			$ -	$ -
Total Non-HR			$ -	$ -
Total Constant $ Expenses		$11,771,513.00	$10,511,463.10	$ 1,260,049.90

% of Premium Dollar devoted to Administrative Expense in Current	**16.00%**
% Reduction in Administrative Costs due under single payer model.	**10.7%**
% of Premium dollar devoted to Administrative expense in Single Payer model	**14.29%**

L. ESTIMATED HOSPITAL AND FACILITY ADMINISTRATIVE SAVINGS

ESTIMATED HOSPITAL ADMINISTRATIVE COSTS RELEVANT TO SINGLE PAYER SYSTEM				
Costs	% Change in Adminitrative Costs Single Payer System	Efficient Size Est. Costs	Single Payer Est. Costs	Savings(+)/ Increase(-)
FINANCE AND ADMINISTRATION				
Executive Director	-15%	$ 159,334	$ 135,434	$ 23,900
Chief Financial Officer	-10%	$ 125,000	$ 112,500	$ 12,500
Analysts	-15%	$ 75,000	$ 63,750	$ 11,250
Administrative Support	-5%	$ 44,903	$ 42,658	$ 2,245
General - Other				
Customer Service Staff	30%	$ 225,000	$ 292,500	$ (67,500)
MARKETING DEPARTMENT				
Marketing Director	30%	$ 93,230	$ 121,199	$ (27,969)
Administrative Support	30%	$ 44,903	$ 58,374	$ (13,471)
Marketing Brochures	0%	$ 125,000	$ 125,000	$ -
INFORMATION TECHNOLOGY				
Systems Manager	-40%	$ 108,637	$ 65,182	$ 43,455
Systems Analyst	-40%	$ 77,428	$ 46,457	$ 30,971
Programmer	-40%	$ 57,676	$ 34,606	$ 23,070
WebMaster		$ 22,000		
Software License Fees				
General Office Software	-20%	$ 15,000	$ 12,000	$ 3,000
Accounting Software	-40%	$ 35,000	$ 21,000	$ 14,000
Medical Management Software	0%	$ 35,000	$ 35,000	$ -
CLAIMS DEPARTMENT				
Claims Manager	-50%	$ 123,253	$ 61,627	$ 61,627
Claims Adjudicator	-30%	$ 525,000	$ 367,500	$ 157,500
HEALTH SERVICES DEPARTMENT				
Medical Director	-10%	$ 108,637	$ 97,773	$ 10,864
UR Coordinator	0%	$ 855,000	$ 855,000	$ -
Administrative Support	-25%	$ 44,930	$ 33,698	$ 11,233
Grievance Counselor	30%	$ 66,500	$ 86,450	$ (19,950)
Medical Authorization Forms	-25%	$ 3,500	$ 2,625	$ 875
Disease Management Fees	0%	$ 15,000	$ 15,000	$ -
PROVIDER RELATIONS				
Provider Relations Staff	-35%	$ 165,516	$ 107,585	$ 57,931
Provider Materials	-35%	$ 3,500	$ 2,275	$ 1,225
Contracting Manager	-40%	$ 55,600	$ 33,360	$ 22,240
Contracting Staff	-40%	$ 24,000	$ 14,400	$ 9,600
REGULATORY COMPLIANCE DEPARTMENT				
Insurance Commission	-30%	$ 12,500	$ 8,750	$ 3,750
Public Health	0%	$ 12,500	$ 12,500	$ -
Medicaid	-80%	$ 12,500	$ 2,500	$ 10,000
Medicare	-80%	$ 12,500	$ 2,500	$ 10,000
Licensure Agencies (providers and hospital	0%	$ 6,250	$ 6,250	$ -
HIPPA	-30%	$ 6,250	$ 4,375	$ 1,875

ESTIMATED HOSPITAL ADMINISTRATIVE COSTS (Con't.)

RELEVANT TO SINGLE PAYER SYSTEM

Costs	% Change in Adminitrative Single Payer System	Efficient Size Est. Costs	Single Payer Est. Costs	Savings(+)/ Increase(-)
Per Employee Expenses				
Occupancy	0%	$ 580,000	$ 580,000	$ -
Telephone	0%	$ 219,986	$ 219,986	$ -
Supplies	0%	$ 153,033	$ 153,033	$ -
Equipment (PCs, etc.)	0%	$ 398,761	$ 398,761	$ -
Dues, Education, Travel	0%	$ 375,000	$ 375,000	$ -
Per Member Per Month Expenses				
Excess Education, Communication	0%	$ 35,000	$ 35,000	$ -
Fixed				
Advertising	30%	$ 750,000	$ 975,000	$ (225,000)
System Development (Amortized)	-25%	$ 255,256	$ 191,442	$ 63,814
Legal Fees	-25%	$ 125,000	$ 93,750	$ 31,250
Audit Fees	20%	$ 225,000	$ 270,000	$ (45,000)
Actuary Fees	50%	$ 225,000	$ 337,500	$ (112,500)
Banking Fees	0%	$ 25,000	$ 25,000	$ -
Outside Consultant Fees	-15%	$ 125,000	$ 106,250	$ 18,750
Provider Credentialing Fees	0%	$ 55,000	$ 55,000	$ -
Reinsurance Expense	-50%	$ 125,000	$ 62,500	$ 62,500
Professional Liability Insurance	0%	$ 250,000	$ 250,000	$ -
Community Outreach Efforts	30%	$ 125,000	$ 162,500	$ (37,500)
Philanthropy	0%	$ 45,000	$ 45,000	$ -
Hospital Chaplain	-50%	$ 36,600	$ 18,300	$ 18,300
Totals		$ 7,424,683	$ 7,233,849	$ 168,834

Percent of Hosptial Revenues Devoted to Administrative Costs	**31%**	**30.20%**
Percent Change in Hospital Revenues Devoted to Administrative Costs under		**2.57%**

M. ESTIMATED PROVIDER ADMINISTRATIVE SAVINGS

ESTIMATED ADMINISTRATIVE COST STRUCTURE FOR INDIVIDUAL PROVIDERS AND PROVIDER GROUPS

PHYSICIAN, PHARMACY, BEHAVIORAL HEALTH AND ANCILLARY PROVIDERS

Costs	Expected % change Single Payer System	% of Administrative Cost	% of Administrative Cost in Single Payer System
Rent or Mortgage Expense	0%	9%	9%
General Office Equipment (Amortization and Depreciation) (e.g. Telephone, PCs, etc.)	-20%	5%	4%
Office Supplies	0%	0%	0%
Software License Fees			0%
General Office Software	-30%	2%	1%
Accounting Software	-30%	2%	1%
Utilities	0%	5%	5%
Office Manager	-30%	10%	7%
Coder	-50%	5%	3%
Reception/Scheduling	-5%	3%	3%
Nurses	-15%	15%	13%
Physician Time Spent in Administrative Dut	-25%	5%	4%
Contracting Function	-75%	2%	1%
Claims Function	-50%	4%	2%
Medical Documentation	-20%	8%	6%
Medical Records-Keeping	0%	8%	8%
Professional Liability Insurance Premiums	-50%	15%	8%
Certification Fees	0%	2%	2%
Licensure Fees	0%	1%	1%
Patient Newsletter			
	Total	100%	76%

	Physician	Ancillary	Pharmacy	Behavioral Health
Current administrative costs as proportion of practice revenue:	**25%**	**19%**	**15%**	**37%**
Single payer administrative costs as proportion of practice revenue	**19%**	**14%**	**11%**	**28%**
Percent change in administrative costs under single payer model	**25%**	**25%**	**25%**	**25%**
Percent change in administrative costs share of total premium dollar:	**6%**	**5%**	**4%**	**9%**

N. BENEFIT PACKAGE OF SINGLE PAYER SYSTEM

The benefit package would be similar to the State government employee's indemnity plan (with comprehensive coverage). It covers:

- Inpatient hospital
- Hospice care
- Emergency care
- Outpatient surgery
- Laboratory tests and x-rays
- Physician visits, including behavioral health care
- Preventive care, including immunizations and well-baby care
- Therapies, including physical, occupational, and chiropractic
- Infertility treatment
- Limited home health care
- Maternity care, including prenatal and postnatal visits
- Home infusion therapy
- Durable medical equipment
- Family planning services
- Vision care
- Dental care

O. GLOBAL BUDGETING[85]

Single payer model assumes global operating and capital budgets for providers and facilities covering all health services covered by the program and all capital expenditures in excess of $500,000. In the first year that SPA assumes payment for health services, the global operating budgets for providers and facilities will be set at what total health spending in Massachusetts was for the previous year with the following adjustments:

- Projected inflation under then current trends*;
- Projected utilization increases for persons previously uninsured or underinsured;
- Projected utilization increases from the elimination of cost sharing;
- Projected utilization increases from the elimination of HMO coverage;
- Projected administrative savings; and
- Projected savings from the elimination of uncompensated care.

Reimbursement schedules or rates to cover operating expenses will be negotiated annually with providers or groups of providers and will remain in effect for one year unless SPA determines they should be modified sooner to ensure adequate reimbursement for services actually provided. Schedules/rates can be either capitated or fee for service depending on provider preference. First year provider operating budgets will be based on the weighted average of provider payments from all** sources for the previous year with the adjustments outlined above.

Reimbursement schedules or rates to cover operating expenses will be negotiated with annually with facilities or groups of facilities and will remain in effect for one year unless SPA determines they should be modified sooner to ensure adequate reimbursement for services actually provided. Schedules/rates can be either capitated or fee for service depending on facility preference. First year facility operating budgets will be based on the weighted average of payments to them from all sources for the previous year with the adjustments outlined above.

Operating expenses includes the direct and indirect costs of providing health care services including reasonable costs for the maintenance, replacement and purchase of capital equipment not included in facility capital budgets.

Budgets to cover prospective capital investments shall be negotiated annually with facilities and providers or groups of facilities and providers. All capital investments in excess of $500,000 will require prior approval of SPA. Facilities and providers can retain charitable gifts for capital purposes for approved capital expenditures. Capital budgets will be adjusted accordingly.

[85] This Appendix was provided by one of the Advisory Group members and is not LECG work product. It is included at the request of some Advisory Committee members.

*This inflation rate would include any shift to higher Medicaid reimbursement rates in the higher cost scenario. The high and low cost scenarios for single payer should be treated separately as they are for the Medicaid Expansion model.

**Since all sources are included this entirely eliminates the need for billing patients. Facilities and providers need only report utilization and coverage status to SPA and SPA pays and recovers payment from patients not covered by the system to the maximum extent possible.

P. SINGLE PAYER MODEL IMPLEMENTATION SCHEDULE AND ESTIMATED COSTS THROUGH YEAR SIX

Single Payer Ramp-Up Costs ($ millions) - assumes low cost of care estimates

	Implementation	Administration	Cost of Care	Annual Total Cost
Year 1				
SPA & regulatory development	20			
Delivery system development	16.6			
Information technology	11			
Other expenses	6			
SPA operating costs		193.41		
Direct care				
Total	$ 53.6	$ 193.4		$ 247.0
Year 2				
SPA & regulatory development	20			
Delivery system development	16.6			
Information technology	11			
Other expenses	6			
SPA operating costs		322.35		
Direct care				
Total	$ 107	$ 516		$ 623.0
Year 3				
SPA & regulatory development				
Delivery system development	16.6			
Information technology	11			
Other expenses				
SPA operating costs		483.53		
Direct care			12,859	
Allocated teaching and research			165	
Total	$ 28	$ 484	$ 13,024	$ 13,535.1
Year 4				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			23,575	
Allocated teaching and research			302	
Total		$ 645	$ 23,877	$ 24,522.0

	Implementation	Administration	Cost of Care	Annual Total Cost
Year 5				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			32,148	
Allocated teaching and research			412	
Total		$ 645	$ 32,560	$ 33,204.6
Year 6				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			42,864	
Allocated teaching and research			549	
Total		$ 645	$ 43,413	$ 44,057.9

Single Payer Ramp-Up Costs ($ millions) - assumes high cost of care estimates

	Implementation	Administration	Cost of Care	Annual Total Cost
Year 1				
SPA & regulatory development	20			
Delivery system development	16.6			
Information technology	11			
Other expenses	6			
SPA operating costs		193.41		
Direct care				
Total	$ 53.6	$ 193.4		$ 247.0
Year 2				
SPA & regulatory development	20			
Delivery system development	16.6			
Information technology	11			
Other expenses	6			
SPA operating costs		322.35		
Direct care				
Total	$ 107	$ 516		$ 623.0
Year 3				
SPA & regulatory development				
Delivery system development	16.6			
Information technology	11			
Other expenses				
SPA operating costs		483.53		
Direct care			13,927	
Allocated teaching and research			165	
Total	$ 28	$ 484	$ 14,092	$ 14,603.1
Year 4				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			25,533	
Allocated teaching and research			302	
Total		$ 645	$ 25,835	$ 26,480.0

	Implementation	Administration	Cost of Care	Annual Total Cost
Year 5				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			34,818	
Allocated teaching and research			412	
Total		$ 645	$ 35,230	$ 35,874.6
Year 6				
SPA & regulatory development				
Delivery system development				
Information technology				
Other expenses				
SPA operating costs		644.7		
Direct care			46,424	
Allocated teaching and research			549	
Total		$ 645	$ 46,973	$ 47,617.9